BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission, et al.	:	
v.	:	Docket No. R-78060626
Metropolitan Edison Company	:	

BRIEF FOR THE PENNSYLVANIA OFFICE OF CONSUMER ADVOCATE

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STATEMENT OF THE CASE

A. Introduction

In June of 1978, Metropolitan Edison Company filed Tariff No. 43 before this Commission. A review of the Company's "Statement of Reasons" reveals that the fundamental purpose of this filing was to recover the capital and operating costs associated with the impending commercial operation of its newest nuclear facility, TMI-2. Having just completed the litigation of a rate filing at R.I.D. 434, and having not yet had any experience under the rates granted in that case, there could be, in reality, no other justification for filing the instant case.

Nevertheless, the Company seized this opportunity and ran with it, choosing to relitigate every issue that had been raised in the course of the hearings in R.I.D. 434, which had only been concluded a few months earlier.

In order to assure themselves of a second bite of the apple, Metropolitan Edison filed the instant case on the basis of a future test year, ending March 31, 1979, in contrast to the historic test year approach they had used in their prior case. By using a future test year which ends over two years after the test year in the last case, Met-Ed has forced the various parties to this proceeding, the presiding ALJ, and the Commission to apply the same level of scrutiny to every dollar of each line item of their claim that would have been required had the Company not filed for a period of two or more years.

The approach taken by the Company in its latest filing is clearly contrary to the Commission's expressed intentions as stated in its final Order. The Commission clearly intended the next Met-Ed rate case, resulting from the commercial operation of TMI-2, to be of an "expedited nature" "in light of the recentness of this proceeding." Pa. PUC v. Metropolitan Edison Co., R.I.D. 434 at 6 (September 18, 1978).

Of course, since the Company did not delay its instant filing until it had received the Commission's final Order, it should not be inferred that OCA believes that Met-Ed intentionally disregarded the wishes of this Commission. Nevertheless, OCA submits that this practice of filing repeated requests for rate relief, raising issues that have just been disposed of, should not be encouraged by this Commission. Many complex and time-consuming matters are constantly demanding the attention of this Commission. Considering the already Herculean burden upon this Commission, Met-Ed should be directed to cease their present rate filing practices.

B. History Of The Case

On June 30, 1978, the Respondent, Metropolitan Edison Company, filed Tariff Electric Pa. P.U.C. No. 43, proposed to become effective August 29, 1978. Tariff No. 43 would make changes in certain rules and regulations and would increase, or make changes in, existing rates for approximately 340,000 customers within Met-Ed's service territory, thereby increasing the utility's base revenues from Pennsylvania retail customers by approximately $79 million over and above the revenues anticipated from the decision in the last rate case which was entered September 18, 1978. The rate request in Tariff No. 43 reflects an overall increase in base rates of 30%.

By Order entered August 8, 1978, the Commission suspended Tariff No. 43 for seven months from the date the rates would otherwise be effective.

On August 10, 1978, the Consumer Advocate filed a formal complaint in opposition to Tariff No. 43. A large number of additional complaints were also filed. The complaint of the Consumer Advocate and the complaints of other parties have been consolidated for hearing at R-78060626.

After one pre-hearing conference and 26 days of evidentiary hearings, the record was closed for all general purposes on December 18, 1978.

C. Deadline For Commission Action

A great deal of concern has been voiced recently about the manner in which rate cases are filed, tried and decided in rapid succession, often with one case beginning before the decision on the last has been entered. The situation with regard to Met-Ed is a case in point: Met-Ed filed Tariff No. 43 on June 30, 1978; the Commission's decision on the prior tariff, Tariff No. 42, was not entered until two-and-one-half months later, September 18, 1978.

The major concern has been the inability of the Commission to assess the effect of one rate order before ruling on a subsequent rate request. Understandably, however, an additional concern has been the case overload which these filings have caused on the docket of the Commission.

Unfortunately, it appears that this problem may be compounded, rather than alleviated, as a result of the new statutory provision allowing future test years. Now, there is the possibility that test years as well as rate cases may overlap.

For this reason, the Commission should exercise whatever authority it has to curb this trend toward overlapping rate cases.

Section 4 of Act 215, 66 Pa. C.S.A. §1308(d), provides, _inter alia_, that a tariff which proposes a general rate increase may be suspended for a period "not to exceed seven months from the time such rates would otherwise become effective." The date from which the suspension period runs, therefore, is dependent upon the date the tariff would have become effective had the tariff not been suspended.

Public utilities, including Met-Ed, generally recognize the requirement that a tariff cannot become effective except after sixty days' notice to the Commission. 66 Pa. C.S.A. §1308(a). Consequently, they set their "effective date" sixty days from the date of the filing.

However, public utilities have not recognized the limitation imposed by case law that prior to the disposition of one rate proceeding, another tariff cannot become effective. This limitation is equally applicable to the determination of the "effective date" of the tariff. As stated in City of Pittsburgh v. Pa. PUC, 171 Pa. Super Ct. 391, 394 (1952):

> We are of the opinion that, pending the disposition of the undetermined rate proceeding, no increase in rates is permissible except as may be provided by section 310 of the Public Utility Law of May 28, 1937, P.L. 1053, 66 P.S. §1150.

The exception the Court provided pertains to the Commission's authority to set temporary rates. Today, the exception would apply, by analogy, to a request for extraordinary rate relief. Neither exception is applicable to this case.

Applying the judicially-established as well as the statutorily-imposed limitations to the case at bar, the effective date for Tariff No. 43 is September 19, 1978, rather than August 29, 1978, the date the tariff was "proposed to become effective." Met-Ed Exh. B-2. Consequently, the suspension period runs until April 18, 1979.

I. MEASURE OF VALUE

A. Rate Base Treatment--Excluding TMI-2--The Company Has Improperly Emphasized The Unknown By Utilizing A Year End Rate Base, By Making Numerous Normalization And Annualization Adjustments By Ignoring Available Actual Test Year Data, And By Making Out-Of-Period Adjustments To That Year End Data.

The Company has filed actual data for an historic test year, ending March 31, 1978, and budgeted data for a future test year, ending March 31, 1979. It has based its rate claim, however, on the future test year data.

The Office of Consumer Advocate accepts the twelve-month period ending March 31, 1979 as the appropriate test year. This test year meets the legal requirements of 66 Pa. C.S.A. §315(e) and 52 Pa. Code §3.271 as well as the regulatory requirements set forth in Mr. Madan's direct testimony: It is representative of normal company operations, and the data therefrom can be measured with reasonable objectivity. C.A. Statement 2-A at 6.

Although the Company's choice of a test year is appropriate, its treatment of that test year violates prior Commission policy and sound regulatory practice. First, the Company uses a year end rate base, thereby putting the full weight of its rate base claim on the most remote point in the test year and making "some twenty-two normalization and annualization adjustments to rate base and thirty-one additional adjustments to revenues and expenses." C.A. Statement 2-A at 6. Second, Met-Ed ignores, for purposes of their claim, the actual test year data which is available for the first seven months of the test year. Last, the Company adds insult to injury by taking the year end data and adding to that certain out-of-period adjustments both to rate base and to operating expenses.

To redress these errors, the Office of Consumer Advocate has made the following adjustments: It has utilized an average rate base consisting of thirteen months of data; it has eliminated the normalization and annualization adjustments occasioned by the use of a year end rate base; it has adjusted the average per budget by the amount by which the budget diverges from the actual during the first seven months of the test year; and it has eliminated out-of-period adjustments to the future test year data. For purposes of clarity, each of these adjustments will be treated separately.

1. <u>The proper treatment of a future test year requires utilization of an average rate base, not a year end rate base, for reliable and representative results.</u>

Met-Ed's future test year consists of nine months of data drawn from the 1978 initial operating budget and three months of data drawn from the 1979 forecasted budget. Both budgets were developed by the Company in the latter part of 1977. The figures drawn from the 1978 operating budget were revised after the first quarter of the calendar year on the basis of the three months of 1978 (non-test year) actual data then available. Tr. 79. However, there is no indication that the 1979 forecasted budget figures were re-examined at all.

Furthermore, the 1979 forecasted budget is not developed in the same detail and does not receive the same degree of review at the outset as does the 1978 operating budget. This was verified by Mr. Creitz on cross-examination:

> A. . . . there is a limit to how finely you should tune the forecasted year. Tr. 76.
>
> . . . .

> Q. . . . So then in a matter of principle, would you agree that the forecasted budget by definition will receive less review and be more prone to be off-target because simply by the factor that it is reaching further out in time?
>
> A. I believe so. Tr. 77.

Consequently, the year end data is particularly unreliable in this case because it is not part of the Company's operating budget.

Then the Company makes numerous normalization and annualization adjustments in order to equate test year revenues and expenses with the rate base selected. Since many of these expenses are speculative to begin with, the annualization of these expenses only accentuates possible errors. As stated by Mr. Madan:

> A minimum of adjustments should be made to test period data. . . . The accuracy of many of these adjustments is highly questionable. By using an average rather than year end rate base with a forecasted test year, the complications and controversies over appropriate annualization adjustments are eliminated. C.A. Statement 2-A, p. 8.

However, even if the year end data had been drawn from the Company's operating budget, and the adjustments could be verified, Commission policy and sound regulatory practice would still dictate use of an average, rather than a year end, rate base, and few if any adjustments.

Pa. PUC v. Pennsylvania Electric Company at R.I.D. 392 (June 28, 1978) was the first Pennsylvania rate case to be litigated on the basis of a future test year. As such, it set a precedent for treatment of future test year data. In R.I.D. 392, the Company used an average rate base consisting of the average of the beginning point and end point in the test year. The Office of Consumer Advocate, on the other hand,

advocated the use of an average rate base consisting of a twelve or thirteen-month average, although it actually employed midpoint data since twelve or thirteen-month data was not made available by the Company. As Mr. Madan pointed out in the Penelec rate case at R.I.D. 392, the use of a future test year has two significant implications: The use of an average rate base, and revenues and expenses as they fall; and 2) the use of few, if any, adjustments to test period data. C.A. Statement 3, pp. 7-12. In its Order of June 28, 1978, the Commission adopted the position of the Office of Consumer Advocate:

> We agree with the Consumer Advocate. As an averaging technique, the beginning and ending average balance method is highly simplistic and <u>places too much weight on the end points</u>. We would have preferred use of a twelve-month or thirteen-month average such as is used in most other jurisdictions. <u>Id</u>. at 3. (Emphasis added)

Certainly, then, if the Commission faulted a beginning and ending average for placing too much weight on the end point, it would thoroughly condemn use of a year end rate base which places all of its weight on the end point.

In its order at R.I.D. 392, the Commission also recognized the treatment of rate base in those jurisdictions which have had more experience than ours with future test year filings, most particularly the views of the Federal Power Commission (FPC). The longstanding policy of the FPC has been to use an average rate base with future test year filings. <u>Re Florida Power and Light Co.</u>, 17 PUR 4th 478, 493 (FPC, 1976). In employing an average, the FPC also recognizes that a twelve or thirteen-month average is the best averaging technique because it is more precise and less subject to distortion than other methods. <u>See Re Public Service Commission of Indiana, Inc.</u>, 19 PUR 4th 150, 162

(1977); Re Public Service Commission of Indiana, Inc., 17 PUR 4th 270, 290 (1976).

Therefore, use of a year end rate base with a future test year is improper because the year end data is unreliable and the year end rate base method is simplistic, distortive and unnecessary. This Commission and others have repeatedly rejected rate base treatments which have yielded such results, and this Commission should do so again in the case at bar.

2. The adjustment of budgeted data by actual data available for the future test year is necessary to ensure reliable and objective test year data.

As stated previously, Met-Ed's future test year is based on projections made in the latter part of 1977, looking four to sixteen months into the future. Rather than trying to second-guess the Company's projections, the Office of Consumer Advocate has adjusted the budgeted data by the latest available actual data which has been made available. In their direct testimony, Mr. Madan and Mr. McAloon used five months of actual data, March 31, 1978-August 31, 1978, because that was all that had been made available prior to the preparation of their direct testimony. Tr. 1743. In the wrap-up exhibits, the Office of Consumer Advocate has used seven months of actual data, March 31, 1978-October 31, 1978, because that was made available prior to the wrap-up deadline.

The position of the Office of Consumer Advocate in using actual data is consistent with the General Assembly's amendment to the Public Utility Law, 66 Pa.C.S.A. §315(e), and with the Commission's interpretation of that future test year amendment. Section 312 of the

Public Utility Law, as amended, 66 Pa.C.S.A. §315(e), states in pertinent part, that:

> Whenever a utility utilizes a future test year in any rate proceeding and such future test year forms a substantive basis for the final rate determination of the commission, the utility shall provide, as specified by the commission in its final order, appropriate data evidencing the accuracy of the estimates continued in the future test year, and the commission may, after reasonable notice and hearing, in its discretion, adjust the utility's rates on the basis of that data.

This section was quoted at length by the presiding Administrative Law Judges in the first case utilizing a future test year in support of the Consumer Advocate's use of actual data. Recommended Decision, Pa. Public Utility Commission v. Pennsylvania Electric Co., R.I.D. 392 at 16 (Dec. 1, 1977).

On May 27, 1978, the Commission published final regulations pursuant to Section 312 of the Public Utility Law, as amended, 66 Pa. C.S.A. §315(e). Noting the undesirability of relying on data which cannot be verified until after final rates are put into effect and the desirability of verifying the data during the course of the rate proceeding, the Commission ordered as follows:

> Where a public utility submits and uses data for a future test year, it shall during the course of the proceeding, submit for the record the results of its actual experience in the future test year for each quarter starting with the day following the end of the required experienced 12-month period. Such results shall be submitted within 30 days of the end of the quarter or as soon thereafter as possible. 52 Pa. Code §3.271(b), 8 Pa. Bull. 1469 (May 27, 1978).

Therefore, the Commission has sanctioned and encouraged the comparison of actual and budgeted data during the course of the rate proceeding through its future test year regulations.

During the course of this rate proceeding, Met-Ed has filed actual data for the first seven months of the test year. Therefore, the Commission has the wherewithal to judge "the accuracy of the estimates contained in the future test year" and to "adjust the utility's rates on the basis of that data" in its final order. 66 Pa.C.S.A. §315(e). This is the appropriate procedure to use.

In assessing the accuracy of the estimates contained in the first five months of the test year by comparing the budgeted numbers with the actuals, Mr. Madan found many discrepancies. C.A. Statement 2-A, Sch. RB-1, p. 3. The Company has failed to justify these discrepancies. Furthermore, Mr. Madan has stated that as a general proposition:

> Actual data is much more reliable than budgeted data as an indicator of the current financial and operating status of a utility, and consequently affords a much more objective basis for setting future rates. C.A. Statement 2-A, p 7.

Therefore, the Office of Consumer Advocate recommends that an amount be deducted from the average rate base to reflect the current (October 31, 1978) discrepancy between budget and actual data.

3. Respondent has violated the legislative intent of the future test year filing's provision by making out-of-period adjustments to that filing.

The conclusion that few, if any, adjustments are appropriate to future test year data is grounded in the legislative history of Section 312 of the Public Utility Law and the economic principle of matching.

The General Assembly, by the Act of October 7, 1976, P.L. 1057, No. 215 §6, amended Section 312 of the Public Utility Law to

permit a utility to employ a "future test year" in establishing its burden of proof in rate proceedings. The document that accompanied the bill proposing this Act, "Report and Recommendations of the Senate Consumer Affairs Committee to Reform the Pennsylvania Public Utility Commission," dated October, 1975, gives the most reliable statement of the intent of the General Assembly in enacting this legislation.

It is clear from a reading of this Report that the legislative intent in allowing for future test year filings was to eliminate attrition due to regulatory lag and to eliminate the concomitant piecemeal post test year adjustments which the Commission had allowed to offset this lag. This was discussed at length in the Brief for the Pennsylvania Office of Consumer Advocate, Pa. PUC v. Pennsylvania Electric Company, R.I.D. 392 at 4-24 (October 20, 1977). As stated in the Report:

> . . . there is often controversy concerning the extent to which the utility has been selective in the adjustments it proposes to make. Also, there is confusion as to whether the purpose of the adjustments is to restate costs for the test year on the assumption that conditions prevailing at the end of the year prevailed throughout the year, or whether the purpose is to predict.

A shift to future test years is, in part, a response to these problems, according to the Committee. In fact, an abandonment by utilities of efforts to make out-of-period adjustments may well have been a quid pro quo for the authorization of future test years in Pennsylvania.

This interpretation is confirmed by the Commission in the first future test year rate case they decided, Pa. PUC v. Pennsylvania Electric Company, R.I.D. 392 at 2 (June 28, 1978). As stated therein:

> This lag between the historic test year and the completion of a rate case was a principle reason for the recent amendment of Section 312 of the Public Utility Law by the General Assembly so as to permit the use of future test years by utilities in rate proceedings.
>
> . . . .
>
> In the past when the rate of inflation was low, it was assumed that the recent experience of a company was an adequate indication of conditions in the near future. The rapid inflation experienced in recent times has changed this. . . . We have attempted to remedy the defects in the historical test year by making normalizing adjustments, grafting on to experienced test year data known or readily foreseeable changes. This has proved to be, at best, only a marginal improvement. Recognizing the need for improvement in the regulatory procedure, the General Assembly amended Section 312 of the Public Utility Law (66 P.S.§1152) to allow utilities to use future test years.

Not only should legislative intent serve as a deterrent to post test year adjustment, the application of sound regulatory principles requires the elimination of post test year adjustments, as well.

In brief, the purpose of using a test year is to provide a basis for setting rates for the near-term future. Using a test year affords the Commission the opportunity to look at the relationship between rate base and expenses and the revenue which supports them. Post test year adjustments to test year data are, by definition, piecemeal. This piecemeal selectivity skews the test year match and is "repugnant to the test year's theoretical roots--its usefulness in capturing for simultaneous observation the dynamic interrelationships among revenues, expenses and investment." Clark Downs, 50 Boston University Law Review 792, 796 (1972).

Even when treating a historic test year, the Commission was selective in the post test vear adjustments it would allow. In short, the adjustments had to be "known," "imminent," and "non-revenue producing," or "non-expense reducing." This standard applied equally to both rate base and expense adjustments. See e.g. Pa. PUC v. Keystone Water Company--Yardley District, R.I.D. 154 (June 2, 1976); Pa. PUC v. Western Pennsylvania Water Company, R.I.D. 116 (March 11, 1975); Pa. PUC v. Philadelphia Electric Company, 44 Pa. PUC 376, 386 (1969).

The fear of the Commission in allowing wholesale out-of-period adjustment far into the future was expressed in the following way:

> These rules ["that the latest available relevant data" be considered] are not controlling in this case since their application without limitation would, in my view, result in unjust and unreasonable rates. The automatic application of these rules would mean there could never be a conclusion to a rate case since changing circumstances would just before the end of the case present in effect a new case and the cycle would continue ad infinitum.

Pennsylvania Public Utility Commission v. Keystone Water Co.--Yardley District, R.I.D. 154 at 20 (June 2, 1976).

It should be noted that in Pa. PUC v. Pennsylvania Electric Company, R.I.D. 392 (June 28, 1978), the Company claimed wholesale out-of-period adjustments to its future test year, including a claim for TMI-2. The Commission disallowed almost all of these claims--the rate base claim for TMI-2 and the expenses associated therewith, the rate base claim for Homer City No. 3 clean-up costs, expenses claimed for implementation of 76-PRMD-10 and expenses for a load research program already under way. As a matter of fact, the only post test year

adjustment the Commission allowed was the rate base adjustment for a coal cleaning system for Homer City which was ready for operation during the test year but which was not to be put in operation until five months later in order to permit EPA-supervised experimentation with various grades of coal at Homer City No. 3.

Therefore, it is clear that the Commission has adopted the intent of the General Assembly and has strictly construed the future test year provision. Post test year adjustments to future test year data are not to be allowed absent pressing reasons to the contrary. However, even these reasons will not suffice if the adjustments violate the basic precepts of rate making--that the adjustments be known, imminent, non-revenue producing and non-expense reducing.

B. Electric Plant In Service, Excluding TMI-2, Should Be Reduced By $17.707 Million.

In its original filing, Met-Ed claimed $905.348 million in electric plant in service, excluding TMI-2, reflecting the March 31, 1979 projected level. Met-Ed Exh. B-2, C-2, p. 1. Consistent with the methodology explained in Section I. A. above, the Office of Consumer Advocate recommends that this claim be reduced by $13.778 million to reflect thirteen-month average versus year end data and by $3.929 to reflect actual versus budgeted information. C.A. Statement 2-A, p. 16, RB-1.

As noted by Mr. Madan, the major reason for the large discrepancy between the budgeted and actual expenditures is the slippage in the Portland Industrial Waste System. As stated by Met-Ed's accounting witness, Mr. Huff:

> A. We had in our estimating procedures, budgeted through August 31, $17 million in additions. The actual was $12 million. Tr. 825.
>
> . . .
>
> Q. Then you would explain the difference between budget and actuals [as] primarily due to the delay in Portland [Industrial Waste System] coming on line?
>
> A. Yes. Tr. 826.

In response to a transcript request, Mr. Huff stated that the latest anticipated in-service date for this Portland system is mid 1979, Met-Ed Exh. B-100-1. Consequently, the rate base addition associated with the Portland Industrial Waste System should be disallowed in this case. Due to the slippage that has been experienced by Met-Ed in recent rate base additions, TMI-2 for example, the Commission should treat these projections with caution.

Met-Ed has argued that the Portland Industrial Waste System is a pollution control system required by EPA and, as such, it is non-revenue producing. Therefore, it should be allowed as a post test year adjustment to rate base. Tr. 2317-18. However, Met-Ed has ignored the fact that its in-service date is highly speculative and its costs are still unknown. In short, this post test year investment is neither known nor imminent.

As discussed in Section I. A., the Commission, even with a historic test year, has been reluctant to accept post test year adjustments due to a fear of distorting the matching concept and a fear of creating overlapping and never ending rate cases. These fears, especially the latter, are even more real when applied to a future test year.

Furthermore, as discussed in Section I. A., the Commission in any case has clung to the standard that post test year adjustments must be "known" and "imminent" as well as "non-revenue producing." The Commission has strictly construed this standard in the recent past. There is no reason to make an exception, here.

Offsetting, in part, the discrepancy between budget and actual caused by the Portland Industrial Waste System, is the lag in retirements to plant in service. As of August 31, 1978, retirements were budgeted at $3.338 million while actual retirements were $1.963 million. Tr. 825. The majority (approximately two-thirds) of these retirements are in transmission and distribution. As stated by Mr. Huff, "These may or may not occur." Tr. 825.

For the above-mentioned reasons, electric plant in service, excluding TMI-2, should be reduced by $17.7 million.

C. Electric Plant Held For Future Use Should Be Reduced By $1.471 Million.

In its original filing, Met-Ed claimed $2.640 million for electric plant held for future use. This reflected the expected level of expenditures at March 31, 1979. Met-Ed Exh. B-2, C-2, p. 1. Consistent with the methodology explained in Section I. A. above, the Office of Consumer Advocate recommends that this claim be reduced by $1.471 million to reflect the difference between the year end rate base and the thirteen-month average rate base. C.A. Statement 2-A, p. 17; C.A. Wrap-Up Position, Sch. 2. In calculating the thirteen-month average, the Consumer Advocate has used the revised figures for coal reserves provided by Met-Ed witness, Mr. Huff. Tr. 831; C.A. Statement 2-A, RB-2. No adjustment for actual versus budget is warranted because electric plant held for future use was on budget as of October 31, 1978.

D. <u>Depreciation Reserve For Electric Plant In Service, Excluding TMI-2, Should be Reduced By $5.770 Million.</u>

In its filing, Met-Ed claimed $210.757 million for depreciation reserve--electric plant in service, excluding TMI-2. Met-Ed Exh. B-2, C-2, p. 1. The Company's claim is founded on the use of a year end rate base and, contrary to Commission policy, book rather than theoretical reserve. Met-Ed Exh. B-2, C-2, pp. 1, 4.

Consistent with the methodology described in Section I. A. above, and the treatment of electric plant in service, excluding TMI-2, the Office of Consumer Advocate recommends that the depreciation reserve for electric plant in service, excluding TMI-2, be reduced by $9.191 million to reflect a thirteen-month average rate base and increased by $2.870 million to reflect the difference between actual and budget as of October 31, 1978. C.A. Statement 2-A, p. 17, RB-3; C.A. Wrap-Up Position, Sch. 2. Consistent with the exclusion of the TMI-1 ring girder from electric plant in service, $362,000 should also be deducted from depreciation reserve to reflect the thirteen-month average for the TMI-1 ring girder. Tr. 2320. In addition, to reflect the use of a forty-year life for TMI-1, as explained below, depreciation reserve should be reduced by $3.501 million, an amount which was calculated by GPU personnel for the purpose of the <u>Pa. PUC v. Penna. Electric Co.</u>, R-78040599, proceeding. Penelec Exh. I-29 (Garland). Last, to reflect use of theoretical rather than book reserve, the Consumer Advocate recommends that $4.414 million be added to the depreciation reserve.

1. <u>The Company's use of the remaining term of the operating license for the life span of nuclear power plants should be rejected.</u>

In calculating its annual depreciation expense and depreciation reserve for TMI-1 and TMI-2, Met-Ed has used the number of years remaining in the operating license at the time each plant was put in service as the life span of each plant for depreciation purposes. Met-Ed Exh. I-8, D, p. 3. It is the position of the Office of Consumer Advocate that this method is completely arbitrary and that the record in this case supports the use of a forty-year life for TMI-1 and TMI-2.

First, in the Final Safety Analysis Reports submitted to NRC, Met-Ed and its sister companies requested operating licenses for TMI-1 and TMI-2 for a period of forty years. Staff Statement 5-A-1, p. 6; Tr. 2259. The report for TMI-1 was submitted on January 12, 1971, and the report for TMI-2 on April 4, 1974. Tr. 2258. Mr. Arnold emphasized this point to show that Met-Ed had indeed attempted to get longer operating license periods than granted. However, the information is equally supportive of the fact that in 1971 Met-Ed expected TMI-1 to be in service three more years than the operating license would reflect (January 12, 2011 vs. May 18, 2008) and in 1974, Met-Ed expected TMI-2 to be in service five-six more years than the operating license would reflect (April 4, 2014 vs. November 4, 2009). Staff Statement 5-A-1, -2. Consequently, according to the Company's own projections, TMI-1 should have a thirty-seven-year service life and TMI-2 should have a thirty-six to thirty-seven-year service life, rather than thirty-four and thirty-one-year service lives used by Met-Ed in this proceeding.

Second, the Company has not submitted any evidence to show that the physical or economic life of TMI-1 and TMI-2 is limited to thirty-four and thirty-one years, respectively, although Staff witnesses, Dr. Parate and Dr. Birx, testified and supported exhibits

showing that neither the reactor vessel, the physical housing, nor the reactor coolant system, nor the economics of nuclear generation will be factors which limit nuclear plant life to less than forty years. See Staff Statement 2, pp. 8-10i; Staff Exh. 2-A-1, Staff Statement 5-A-1-5-A-9. In rebuttal, Mr. Arnold submitted two exhibits to show that the reactor vessel may be a limiting factor. Met-Ed Exh. E-23, E-24. However, on cross-examination, he stated:

> A. I don't think I would draw an absolute conclusion in terms of the reactor vessels will limit the life to a specific number of years and designate some specific interval for that. I think that the import of that is that the reactor vessel does have a finite lifespan. Tr. 2273.
>
> . . . .
>
> Q. Would you disagree with the statement he [Dr. Birx] made this morning that the vessel life would be between thirty and forty years?
>
> A. No, I would not disagree with it. Tr. 2274.

The lack of any substantial evidence that the physical and economic life of TMI-1 and TMI-2 is less than forty years lends additional support to acceptance of a forty-year service life.

Third, in granting an operating license for forty years from the date of the construction period, the Nuclear Regulatory Commission (NRC) makes no independent determination that the date of expiration of that permit is the date the plant should be retired. Tr. 2261. This is apparent from the NRC regulations and was confirmed by Mr. Arnold on the stand.

As stated in the NRC regulations, 10 CFR §50.51:

> Each license will be issued for a fixed period of time to be specified in the license but in no case to exceed 40 years from the date of issuance. Where the operation of a facility is involved the Commission will issue the license for the term requested by the applicant or for the estimated useful life of the facility if the Commission determines that the estimated useful life is less than the term requested. Where construction of a facility is involved, the Commission may specify in the construction permit the period for which the license will be issued if approved pursuant to §50.56. Licenses may be renewed by the Commission upon the expiration of the period.

NRC policy, according to Mr. Arnold, has been:

> . . . that when they converted the construction permit to an operating license, the expiration of the operating license would be set at forty years from the date of the construction permit issuance. Tr. 2259.

. . . .

THE ADMINISTRATIVE LAW JUDGE: Is it your opinion that it is possible that the NRC on the operating license makes an independent determination of the term of the operating license?

THE WITNESS: It is my opinion that they make an independent determination that there is not cause for being more restrictive with a particular plant than is their general policy, but they do not make, in my opinion, an individual analysis as to whether a particular plant perhaps could have its operating license issued for one or two or more years beyond the anniversary of the construction permit. They make an independent determination, I think, in one direction but not in the other.

Fourth, adoption of the Company's methodology leads to absurd results. As is demonstrated with TMI-1 and TMI-2, since the operating license life is pegged to issuance of the initial construction and operating permit, the longer the period of construction, the shorter the

service life of the plant. For example, since TMI-1 had a six-year construction period and a forty-year operating license, its service life, according to the Company, is thirty-four years. However, since TMI-2 took nine years to build, its service life, according to the Company, is only thirty-one years. Given the increasing number of years of construction for major nuclear plants, one has to wonder whether the Company will one day propose a ten or twenty-year service life for future nuclear plants.

As stated by Judge Matuschak:

> While there is some precedent in prior Commission's decisions for basing the life span of nuclear plants for depreciation purposes on the remaining term of the operating licenses from the in-service dates, we believe that with experienced delays, both intentional and unintentional, in the construction of nuclear plants, such criteria is not always acceptable, since it could lead to absurd results. Such construction delays use up license time, but do not really affect the functional life of the plants.

Recommended Decision, Pa. PUC v. Phila. Electric Co., R.I.D. 438 at 51 (November 15, 1978).

In that case, the reasonable life span for depreciation purposes for all nuclear plants was judged to be thirty-five years, based on the Company's 1976 study and a subsequent Commission affirmation of that study and the thirty-five year life. The remaining operating license terms, however, were thirty-four years for Peach Bottom Nos. 2 and 3 and thirty-one years for Salem 1. Id. at 49-51.

It is incumbent upon the Company to establish life spans for nuclear plants which are reasonable. The Company, not the Staff and not the Consumer Advocate, has the burden of proof. Met-Ed has failed to meet this burden. Therefore, until such time as the Company shows that

the life span of its nuclear plants is less than forty years, it is reasonable for the Commission to set the life of the Company's nuclear plants for purposes of depreciation on the basis of the design life of the plants--forty years.

2. The Company's use of book depreciation reserve is contrary to Pennsylvania regulatory policy and practice.

In the prior Metropolitan Edison rate case, R.I.D. 434, the Company used a theoretical depreciation reserve. In the case at bar, Met-Ed's book depreciation reserve is lower than its theoretical reserve by $4.414 million. Met-Ed Exh. B-2, D-2, p. 2. Consequently, Met-Ed has proposed use of book rather than theoretical depreciation reserve.

Book depreciation reserve has been rejected by this Commission and the appellate courts of Pennsylvania numerous times. As stated by the Commission in Pa. PUC v. Bell Telephone Co., 45 Pa. PUC 675, 695 (1971):

> Contentions for the use of book depreciation reserve have been considered by this Commission in prior rate proceedings, and in appeals before the Superior and Supreme Courts of Pennsylvania. The appellate courts have repeatedly upheld this Commission on the use of reserve requirement for accrued depreciation and related annual depreciation.

Not only has use of theoretical depreciation been affirmed by the appellate courts, it has been required by the Superior Court. As stated in City of Pittsburgh v. Pa. PUC, 187 Pa. Super. Ct. 341, 353 (1958):

> In arriving at a fair value based upon the respective measures of value in a rate proceeding, the Commission is required to ascertain the actual depreciation of the utility's property as it has been accrued to the date that fair value is in issue. Id. at 353.

Citing the City of Pittsburgh case, the Commission in Bell concluded as follows:

> In our opinion, a proper statement of accrued depreciation at any particular date must be consistent with the latest view as to annual depreciation, i.e., after the revised annual depreciation rates have been developed, the estimate of the associated accrued depreciation must be predicated upon the assumption that the most recently developed and applied annual depreciation rates were effective throughout the entire lives of the surviving elements of plant. Bell, supra at 694. See also Bainbridge Motor Co. v. General Telephone Co., 12 PUR 4th 416 (1975).

Consequently, the Office of Consumer Advocate recommends that the Commission reject the Company's use of book reserve and accept the Consumer Advocate's adjustment for use of theoretical reserve.

E. Nuclear Fuel Spare Assemblies Should Be Reduced By $567,000 To Reflect The Company's Updated Estimates.

In its original filing, Met-Ed claimed $5.181 million for "Nuclear Fuel--Spare Assemblies." Met-Ed Exh. B-2, C-2, p. 1. This was based on the estimate for assemblies to be purchased near the end of the future test year, twenty-six of which were for stock. Met-Ed Exh. B-2, C-2, p. 8. Subsequently, Met-Ed submitted a revised estimate for the test year end purchases showing $4.164 million for the twenty-six spare assemblies. Met-Ed Exh. B-2, C-2, p. 8 revised. The Office of Consumer Advocate accepts these revised estimates and, therefore, recommends that $567,000 be deducted from rate base. C.A. Statement 2-A, p. 18.

F. Other M&S Inventories Should Be Reduced By $446,000.

In its original filing, the Company claimed $10.746 million for other M&S inventories. Met-Ed Exh. B-2, C-2, p. 1. This claim was

based on a thirteen-month average. Met-Ed Exh. B-2, C-2, p. 11. Consistent with its treatment of other non-TMI-2 rate base items, the Office of Consumer Advocate recommends that this claim be reduced by $446,000 to reflect the difference between budgeted and actual inventory amounts as of October 31, 1978. C.A. St. 2-A, pp. 18-19; C.A. Wrap-Up Position, Sch. 2.

G. Deferred Energy Costs Associated With The New Energy Clause Should Be Increased By $.297 Million To Reflect The Change In The Federal Tax Law.

In its original filing, Met-Ed claimed $7.726 million for deferred energy costs associated with the new energy clause, excluding TMI-2. Met-Ed Exh. B-2, C-2, p. 1. In its wrap-up position, Met-Ed increased this claim by $297,000. Met-Ed Exh. B-143, p. 1, p. 3. This change reflects the decrease in the maximum corporate tax rate from 48% to 46%. Since the deferred energy cost claim is the claim net of deferred taxes, the decrease in taxes causes an increase in the deferred energy clause account. Therefore, the Office of Consumer Advocate recommends that the Company's wrap-up position be accepted.

H. Unamortized Deferred Energy Costs Remaining After Implementation Of The New Clause Should Be Reduced By $57,000 If The Commission Finds That The Failure Of The Company To Recover Anticipated Deferred Energy Costs Was Due To The Steam Valve Failure At TMI-2; Otherwise, The Company's Claim Should Be Increased By $2,202,000.

In its original filing, the Company requested $4.235 million for unamortized deferred energy costs due to the implementation of the new energy clause. Met-Ed Exh. B-2, C-2, p. 1. This amount was net of $18.2 million expected to be recovered during the phase-in period (6/30/78-5/31/79) and net of related accumulated deferred income taxes,

using a 48% federal tax rate. Met-Ed Exh. B-2, C-2, p. 13. In its wrap-up exhibits, the Company increased unamortized deferred energy co.. by $2.290 million to $6.525 million. Met-Ed Exh. B-143, p. 4. In the wrap-up, Met-Ed retained the same tax rate. The difference in the total claim was due solely to the anticipated failure of the Company to recover the full amount expected to be recovered during the phase-in period. Instead of $18.2 million, only $13.629 million is projected to be recovered during this period. Id.

The Office of Consumer Advocate respectfully submits that the Company made three errors in its filing.

First, the Company should have used a ten-year amortization period rather than a five-year period. The Commission's Order at I.D. 124, entered March 2, 1978, is non-specific with regard to an amortization period. As stated therein:

> Other deferred fuel and energy expenses to the extent the Commission considers them reasonable and proper shall be allowed in the next general rate case. Id. at 2.

However, this should not be interpreted to give the Company free reign. Mr. McAloon states in his direct testimony that a ten-year period of time is more reasonable than a five-year period for two reasons: The transition to a new energy clause is not a recurring event. Therefore the burden on ratepayers should be minimized. In addition, since the Company is claiming, and the Consumer Advocate is not opposing, the inclusion of the unamortized portion in rate base, the Company will be allowed to earn a rate of return on the unamortized balance. See C.A. Statement 2-A, pp 19-20, 48. Therefore, all of the expenses to the Company, including carrying charges will be borne by the ratepayer. Consequently, the Consumer Advocate recommends use of a ten-year

amortization period as a period that is fair to both ratepayers and stockholders of the Company.

Second, the Company failed to subtract from the unamortized balance, the amount amortized during the test year and included by Met-Ed in its income statement. Met-Ed Exh. B-2, G-2, pp. 1, 19. This error was not correct by the Company in its wrap-up exhibits. Compare Met-Ed Exh. B-143, p. 4 with Met-Ed Exh. B-144, p. 6.

Third, the Company used a 48% federal tax rate rather than the new 46% tax rate. Met-Ed Exh. B-2, g-2, p. 19. As noted in Section V. O. infra, it is the position of the Office of Consumer Advocate and its accounting experts that the 46% maximum tax rate applies to all deferred income tax amounts as well as to currently taxable income.

Last, the Commission should consider excluding from rate base the amount associated with the failure of the Company to recover $4.571 million in deferred energy costs.* It is submitted that the reason for the unrecovered amount is largely due to the failure of the main steam safety valves at TMI-2 and the concomitant delay in the in-service date of TMI-2. In effect, the difference in energy costs with TMI-2 in operation from July through December and without TMI-2 in operation

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* Met -Ed proposed a transitional energy clause imposing a levelized charge of three mills to avoid the peaks and valleys it anticipated in energy costs between July 1, 1978, and April of 1979. The difference between the clause revenues and the actual costs charges were to be used to reduce the June 30, 1978, balance of energy costs deferred under the old clause. Letter of May 26, 1978, re Compliance Filing, I.D. 214.

during that period is reflected by the difference in the amount of deferred energy costs actually recovered versus the amount that was anticipated being recovered.* Therefore, this is one more cost associated with the delay in TMI-2 due to the failure of the main steam safety valves. The Commission would be justified in excluding from rate base this cost along with the $12.158 million in costs analyzed in Section II. Since the legal arguments are thoroughly briefed in Section II, it is sufficient to simply refer to that section, here.

It should be noted that the Office of Consumer Advocate has included the costs associated with the failure to recover the projected amount of deferred energy costs in its wrap-up position. Using the Company's unrecovered balance of $14.021 million, Met-Ed Exh. B-143, p. 4, the Consumer Advocate then deducted related deferred income taxes calculated on the basis of a 46% federal tax rate of $7.245 million. From this is subtracted the average amount amortized during the test year and claimed as an expense, leaving a balance of $6.437 million.

However, the inclusion of the additional unrecovered deferred energy costs by this Office should not be interpreted as a recommendation to the Commission that this amount should be borne by ratepayers. These costs were included in our wrap-up position before the reason for the cost increase was analyzed. For purposes of consistency, these costs were also included in the exhibits contained herein. This should not dissuade the Commission from finding that the variance in estimated unrecovered energy costs is due to the failure of the main steam safety valves at TMI-2 and that these costs, like AFDC cost associated with the failure of the valves, should be shared by both ratepayers and stockholders. Consequently, there is adequate

justification for taking the position that this amount should be excluded from rate base, although the expenses associated therewith may be amortized over a ten-year period.

For all of the aforementioned reasons, the Commission should deduct $57,000 from rate base if the failure to recover deferred energy costs is accepted as a cost of the steam valve failure for TMI-2. However, if the Commission believes that this amount is not attributable to the steam valve failure at TMI-2 or that the failure should be borne 100% by ratepayers, then the Commission should increase the Company's initial claim by $2,202,000.

I. Unamortized Storm Damages Should Be Reduced, At A Minimum, By $710,000.

In its original filing, the Company claimed $1.384 million for the unamortized balance of storm damages at March 31, 1979. Met-Ed Exh. B-2, C-2, p. 1. It should be noted that this rate base claim marks a change in Company policy.

In R.I.D. 64, Met-Ed included an expense claim for storm damages due to Tropical Storm Agnes which reflected a five-year amortization of those expenses. There was no rate base claim by Met-Ed for the unamortized balance. The Commission subsequently ordered the Company to amortize the storm damage expenses over ten years. It made no mention of a possible inclusion of the unamortized portion in rate base. Pa. PUC v. Metropolitan Edison Co., 4 PUR 4th 209, 230 (1974). In the case at bar, the Company has complied with the ten-year amortization order. However, in almost a reactionary fashion, it has thwarted the Commission's intent by proposing a rate base addition for the unamortized balance. In light of this case history, acceptance of

amount of the amortized storm damage expense for the test year should be added back into the rate base ($195,000 - 2) or $98,000. C.A. Statement 2-A, RB-7, p. 1; Met-Ed Exh. B-2, G-2, p. 15.

Finally, both the Company and the Consumer Advocate agree that the unamortized storm damages should be reduced to reflect the related accumulated deferred income taxes. Met-Ed Exh. B-143, p. 1; Met-Ed Exh. B-138; C. A. Statement 2-A, p. 21. However, they disagree on the rate which should apply, consistent with our recommendation that the 46% federal corporate tax rate applies to deferred income taxes, see Section V. O. infra, the Consumer Advocate recommends that $721,000 be deducted from unamortized storm damages to reflect all related accumulated deferred income taxes.

For the aforementioned reasons, if the Commission does not disallow unamortized storm damages completely, the amount of the Company's original claim should be reduced by $710,000.

J. The Commission Should Disallow The Total Amount Claimed By The Company For Unamortized Rate Case Expenses.

In its original filing, Met-Ed claimed $586,000 in unamortized rate case expenses. Met-Ed Exh. B-2, C-2, p. 1. Since the Company had failed to subtract an amount for the related accumulated deferred income taxes in the filing, Met-Ed subtracted $313,000 from this amount in its wrap-up position to correct the error. Met-Ed Exh. B-143, p. 1 (It should be noted that this correction reflects a 48% federal tax rate). The Office of Consumer Advocate submits that all amounts claimed by Met-Ed for unamortized rate case expenses should be disallowed by the Commission as a matter of policy and sound regulatory practice.

Therefore, the Office ~f Consumer Advocate respectfully submits that, given the short amortization period and the regulatory principles involved, $313,000 be deducted from rate base for the unamortized portion of rate case expenses.

In the event that the Commission believes that the unamortized balance of rate base expenses should be included in rate base, the Office of Consumer Advocate recommends that the unamortized portion of the expenses associated with R.I.D. 434 ($262,000 less the deferred taxes associated therewith) be disallowed. Met-Ed Exh. B-2, C-2, p. 15. In R.I.D. 434, the Company incurred $314,000 in expenses to gain $2.6 million in increased revenues. This meager return on its investment was due in large part to an ill-timed filing, a matter well within the control of the Company. The amount of $314,000 seems all the more unjustified when compared to the costs allowed for the two prior rate cases, $210,000 (R.I.D. 170-171) and $150,000 (R.I.D. 64). Therefore, if the Commission does not exclude from rate base all rate case expenses, it should certainly disallow the unamortized balance associated with R.I.D. 434. There is a limit to which ratepayers should be the guarantors of all rate case expenses.

K. Cash Working Capital

It its initial filing, the Company claimed $13,076,000 for cash working capital (CWC) requirements, excluding the alleged requirements for TMI-2, as a normalizing adjustment to its budget. Met-Ed Exh. B-2, C-2, pp. 1, 16. In its wrap-up, Met-Ed revised this claim downward to $12,047,000 to reflect, among other things, the change in the federal tax law to 46%. Tr. 2307. The Consumer Advocate submits that the Company has no need for a cash working capital allowance in rate base.

Judge Matuschak succinctly stated the purpose of allowing cash working capital and the situations under which such an allowance is warranted in his Recommended Decision in Pa. PUC v. Philadelphia Electric Company, R.I.D. 438 (November 15, 1978).

> In many cases, a cash working capital allowance is permitted to be included in the rate base where the investors in a company have provided additional funds for working capital purposes. This follows from the fact that utilities, like other substantial business enterprises, need ready cash to meet current expenses of operation until payments from customers for services rendered have been received, and at the same time maintain a sufficient bank balance.
>
> This necessity, however, does not justify placing cash working capital in the rate base and saddling ratepayers with the cost of providing these funds unless it can be shown, clearly, that these cash requirements have been supplied by utility investors. Otherwise, there should not be a rate base allowance for cash working capital. Id. at 15.

In order to show clearly that cash requirements are met by investors, and not by ratepayers, it is incumbent upon the Company to consider not only every investment made by the Company but also every source of working capital.

Met-Ed has based its working capital claim for O&M expenses on a lead-lag study. In prior rate proceedings, the use of a lead-lag study has been accepted by this Commission as "a proper method of determining operating expense working capital requirements." Pa. PUC v. Duquesne Light Company, 16 PUR 4th 36, 44 (1976). However, in the Duquesne case, the Commission accepted the lag approach in the face of an even less exact alternative. Id.

In the case at bar, the Commission has a choice between accepting the Company's lag approach and adopting the Consumer

Advocate's balance sheet approach. It is respectfully submitted that for the purpose of determining the sources as well as the requirements for working capital the balance sheet approach is far more precise.

1. The Balance Sheet Approach Should Be Used To Identify Cash Working Capital Requirements.

a. Methodology.

The balance sheet method used by Mr. Madan determines working capital requirements of a company by investigating and analyzing the figures that actually appear on the Company's books over the course of the year. Other methods, such as the lead-lag method, make no attempt to reconcile the determined requirements with those indicated on the Company's balance sheet, which is the ultimate measure of the Company's investment.

In the balance sheet analysis conducted in this proceeding, Mr. Madan reviewed Met-Ed's monthly balance sheets, as provided by the Company, for each of the twelve months through August of 1978. This approach enabled Mr. McAloon to eliminate distortions caused by seasonal differences and the effects of any atypical or abnormal occurrences and still be able to consider actual figures for all relevant accounts. C.A. Statement 2-A, p. 23.

First, the assets side of the balance sheet was examined to establish all of the investments made by the Company. From these total assets, all items that were recognized elsewhere in the rate base (e.g., electric utility plant in service, depreciation, coal inventories, etc.) were removed. The residual figure represents other investments of the Company in its business ("uses of working capital") that will be weighed against the sources of working capital generated by the Company. These

other investments include such things as cash, notes and accounts receivable, prepayments, and accrued utility revenues. Id. at Schedule RB-8.

Second, the liabilities side of the balance sheet was examined to determine the total liabilities and capital of the Company. From this total of liabilities and capital, all those items that have been assigned a specific cost in the rate of return calculation were removed (e.g., equity, debt, etc.). The remaining amount represented the net sources of working capital that have been provided to the Company by non-investors. Non-investor sources of working capital include such items as accounts payable, accrued taxes, and accrued interest. Id.

A simple mathematical comparison of the non-investor supplied sources of working capital with the total uses for working capital, as gleaned from the balance sheets in the above fashion and averaged over the test year, establishes whether or not the Company has any requirement for a discrete cash working capital allowance for rate-making purposes. If the uses outweigh the sources, an allowance for working capital is established.

When Mr. Madan performed the above analysis for Met-Ed, the non-investor sources of cash working capital exceeded the uses for cash working capital by $3.1 million. C.A. Statement 2-A, RB-8. Therefore, from the balance sheet it is clear that the Company has no need for a cash working capital allowance in this proceeding.

Although Mr. Madan believes that this analysis is complete and accurate as is, he goes one step further to address a concern analogous to one raised by the Commission in Pa. PUC v. Pennsylvania Electric Company, R.I.D. 392:

Since Met-Ed does not accrue revenues until customers' meters have been read and bills rendered, there is an apprehension that the balance sheet does not reflect all of the Company's working capital requirements. C.A. Statement 2-A, p. 25.

Met-Ed's balance sheet does not have an account for unbilled revenues on its balance sheet although it has a policy of accruing revenues when meters are read and bills rendered rather than when service is provided. Consequently, the asset side of the balance sheet is understated by the amount representing about one-half month's lag between provision of service and billing for that service. To correct his understatement, Mr. Madan adds $5,606,000 to the asset side of the balance sheet.

In addition, Met-Ed's policy of accruing revenues when meters are read and bills rendered rather than immediately upon the rendition of service has an effect on the liability side of the balance sheet. If the effect of this policy on assets (uses of working capital) is recognized, the effect on liabilities (sources of working capital) must also be recognized. This relationship is clearly explained by Mr. Madan in his direct testimony, as follows:

If the Company were recognizing revenues immediately upon the rendering of electric service to customers, this would increase the accounts receivable as the Commission has observed. The accounting entry corresponding to accruing these revenues in accounts receivable, however, is to record these revenues on the income statement of the Company. The growth in this portion of the Company's revenues on a year to year basis is an incremental increase to net utility operating income. C.A. Statement 2-A, p. 25.

Therefore, to correct the understatement on the liabilities side of the balance sheet, Mr. Madan adds $999,000 to rate base because of increase

in operating income associated with the increase in unbilled revenues due to growth. C.A. Statement 2-A, RB-8 at 2.

The net effect associated with unbilled revenues is $4,607,000 ($5,606,000-$999,000). Adding this amount to the negative working capital requirement of $3.1 million, in turn, yields a net working capital requirement of $1,544,000. This is considerably less than the Company's claim of $13.1 million.

Consequently, using the straight balance sheet approach, Met-Ed has a cash working capital surplus of $3.1 million. After adjusting the balance sheet for unbilled revenues, a procedure which Met-Ed could have employed on its balance sheet but did not, Met-Ed has a working capital requirement of $1.5 million. Therefore, it is reasonable in this instance to submit that the Company has shown no need for cash working capital, at all.

b. Benefits.

The balance sheet method has a number of advantages over other methods. First, the balance sheet approach uses actual data recorded monthly by the Company. This data which appears in the Company's operating reports must be reliable since it is the basis on which investors make decisions. Second, by examining the operating reports on a month-by-month basis, the balance sheet approach provides a true match between rate base, including working capital, and all sources of capital. Third, since the approach considers every item on the balance sheet and since the balance sheet in turn reflects every transaction of the Company, the balance sheet method is complete and exact. Last, unlike the lead-lag approach, the balance sheet method has computational ease. C.A. Statement 2-A at 24.

Furthermore, the balance sheet method has been accepted by this Commission as applied to the largest regulated utility in the state, Bell Telephone Company. Pa. PUC v. Bell Telephone Company, R.I.D. 367 (May 11, 1978). In attempting to distinguish the application of the balance sheet approach to Bell Telephone Company and to Met-Ed on cross-examination of Mr. Madan, Met-Ed noted that Bell accrues revenues "instantaneously" while Met-Ed does not. Tr. 1750-1. However, this distinction is completely muted by the fact that Mr. Madan has adjusted both sides of Met-Ed's balance sheet for unbilled revenues, thereby making the balance sheet approach equally applicable to both companies. It should be noted that Met-Ed has not presented any rebuttal testimony on the balance sheet approach; nor has it presented an attempt to reconcile the results of the balance sheet approach with those of their lead-lag study. This is particularly serious because, as stated by Mr. Madan:

> If the Company claims to have a net investment in working capital, they should have no trouble reconciling this figure to the Company's balance sheet, because the balance sheet is where all investments of the Company are recorded. If such a reconciliation is not possible, then the figure produced by the Company's complex exercise must be considered hypothetical. C.A. Statement 2A at 22.

2. If The Lead-Lag Method Is Accepted By The Commission, The Results Must Be Adjusted To Recognize All Non-Investor Sources Of Capital And To Properly Reflect Revenue Lags.

In its initial filing, Met-Ed claimed a cash working capital requirement, excluding TMI-2, of $13,076,000 consisting of operation and maintenance expenses, average prepayments, accrued taxes--adjustments and compensating bank balances. Met-Ed Exh. B-2, E-2, p. 1. However,

in determining this requirement, Met-Ed erred on four counts. Consequently, the Office of Consumer Advocate recommends that the Company's claim be reduced by $8,965,000 to $4,111,000. C.A. Statement 2-A at 27.

First, the Company included $51,000 for average prepayments due to "non-typical insurance" during 1977. Tr. 880. As explained by Mr. Huff:

> Q. But these were atypical pre-payments that I assume you don't anticipate paying in the future?
>
> A. What this was, . . . represents a deposit paid Workmen's Compensation, which FERC indicated to us that that should have been a deposit account as opposed to a prepayment insurance account. We made that transfer on that recommendation I believe in August of 1977. Tr. 881.

Since this was a one-time, atypical event, it should not be included in a calculation of working capital. The wrap-up position of the Company reflects this exclusion. Met-Ed Exh. B-2, E-2, revised December 4, 1978.

Second, contrary to the Commission's decision in R.I.D. 434, the Company once again based its calculation of revenue lag on the assumption that both residential and non-residential bills are paid on the last day of the billing period. The Office of Consumer Advocate recommends that $3,948,000 be deducted from CWC to reflect the use of the midpoint of the billing period. C.A. Statement 2-A at 20.

As stated by the Commission in the prior Met-Ed case:

> We generally agree with the position of Staff. Staff reduced cash working capital by $3,448,000 to reflect the assumption customers paid their bills at the midpoint of the net billing period instead of the last day assumed by the Company. We feel it is reasonable to

> assume some customers pay early and some late, and an equitable balance is the midpoint. Pa. PUC v. Metropolitan Edison Company, R.I.D. 434 at 8 (September 18, 1978).

In its wrap-up position, the Company revised its estimate of revenue lag by assuming that non-residential bills were paid on the 32nd day rather than the 38th day of the billing period and that residential bills were paid on the 31.9th day rather than the 38th day. Met-Ed Exh. E-2, 2-B and 2-C revised December 4, 1978. However, this treatment is also inappropriate.

Met-Ed has begun to conduct a study of the actual lag in residential and non-residential payments. Met-Ed Exh. B-126, B-126-1. It is assumed that the Company's wrap-up position is based on this study to some extent. However, at this point in time the study is approximately one-quarter to one-half complete. Due to the seasonal variations in sales, one can assume that there will also be seasonal variations in the lag between billing and payment. Therefore, the results of the study will not be valid until they reflect a full year of data.

Therefore, while the Met-Ed study may be the best basis for calculating revenue lag in the next rate case, for purposes of this rate case, the Commission's prior assumption that bills are paid at the midpoint of the billing period is still the best estimate. For this reason, $3,948,000 should be deducted from the Company's working capital requirement.

Third, the Company failed to recognize the source of capital provided by the lag associated with interest and preferred debt payments. Tr. 880. The Office of Consumer Advocate recommends that $4,658,000 be deducted from working capital to reflect the lag in

interest payments and that $308,000 be deducted to reflect the lag in preferred debt payments.

These sources of capital represent funds which have been supplied by ratepayers but which have not actually been paid by the Company to its debt holders and preferred stockholders. As stated by Mr. Madan:

> It is money "put aside" by the Company each month to pay the interest on its debt [and dividends on preferred stock] in subsequent periods. This relationship, in my judgment, defines a source of cash working capital. C.A. Statement 2-A at 28.

It is significant to note that the Commission disposed of this same issue in Pa. PUC v. Pennsylvania Electric Company, R.I.D. 392 at 7-8 (June 28, 1978) by agreeing with the Staff and the Consumer Advocate that these were non-investor supplied sources of funds. As stated therein:

> The Administrative Law Judges adopted the Consumer Advocate's calculation. . . . We agree with the Administrative Law Judges that these funds, which are provided by ratepayers in advance of payment [for interest] should be properly considered in arriving at an estimate of respondent's cash needs. Id. at 5.
>
> . . . .
>
> Staff also recommended a disallowance of $1.75 million to reflect the working capital lag in preferred dividend payment. The Administrative Law Judges rejected this adjustment. The Consumer Advocate and Staff except, arguing that there is no discernable (sic) difference between funds used to pay interest to bondholders and funds used to pay preferred dividends. We agree with this exception. In both cases there is an agreed upon or contractual arrangement for the payment of these sums; both items should be treated alike. This is entirely different from the position of a common equity holder who has no claim to the payment of dividends. Id. at 6.

For all of the aforementioned reasons, if the Commission accepts the Company's approach, it must reduce the Company's claimed cash working capital requirement of $13,076,000 by $8,965,000.

L. The Company's Deduction For Unamortized Gain On Reacquired Debt Should Be Increased By $204,000 To Reflect An Average Rate Base Adjusted For Actual Available Data.

In its filing, the Company claimed $930,000 for its balance of unamortized gain due to the Company reacquiring, at less than face value, outstanding Company debt during the test year. Met-Ed Exh. B-2, C-2, p. 1. The Company's claim reflects the balance as of March 31, 1979, the test year end. The Office of Consumer Advocate recommends that this claim be adjusted upward by $29,000 to reflect an average versus year end investment, and be adjusted upward by $175,000 to reflect the variance between actual and budgeted amounts. C.A. Statement 2-A, p. 29. Both adjustments are in conformity with the methodology explained in Section I. A. supra.

Because monthly data was not provided by the Company, the Consumer Advocate used an average of the beginning (April 1, 1978) and ending (March 31, 1979) balance as the test year average. For actual data, the Consumer Advocate used the statistics in the 1978 Operating Report, p. 102. C.A. Statement 2-A, RB-9. However, a comparison of the August with the October Operating Reports showed no change in actual unamortized gain. Therefore, there was no need to change the figures presented in the direct testimony.

For the aforementioned reasons, the Office of Consumer Advocate recommends that the rate base deduction for unamortized gain on reacquired debt be increased by $204,000.

M. <u>The Company's Deduction For Accumulated Deferred Income Taxes Should Be Reduced By $5.339 Million.</u>

In its filing, the Company claimed $47.199 million for accumulated deferred income taxes based on a normalized year end level of deferrals. Met-Ed Exh. B-2, C-2, p. 1. These deferred income taxes are based on the calculation of federal corporate taxes at a 48% rate and normalization, rather than flow through, of the impact of accelerated depreciation on state as well as federal income taxes. C.A. Statement 2-A, p. 30.

Consistent with the treatment of other rate base items, excluding TMI-2, the Office of Consumer Advocate recommends that Deferred Income Taxes be reduced by $2,673,000 to reflect an average rather than a year end rate base, C.A. Statement 2-A, p. 30, RB-10, p. 2, and by $97,000 to reflect the difference between actual and budgeted data as of October 31, 1978. C.A. Wrap-up Position, Sch. 2, Revision of Direct Testimony. Section I. A. of this brief explains in detail the reason for using an average rate base and actual data, to the extent it is available, with a future test year filing. Therefore, it is sufficient to treat this adjustment by reference, here.

Second, the Office of Consumer Advocate recommends that the new 46% maximum federal corporate tax rate be applied to accumulated deferred income taxes. As noted by Mr. Madan:

> The Company based its claim on the filing on a federal income tax rate of 48%; a recent change in the law has reduced this rate to 46%. The effective date of this change is January 1, 1979. The effect of this change is a reduction of the deferred income tax liability contained in the Company's balance sheet. In other words the Company has been accruing a liability for deferred taxes at 48%, but with the change in

> the tax rate, these deferred taxes will be actually paid at the 46% rate. C.A. Statement 2-A, p. 30.

The interpretation of this new tax and its application to deferred taxes has been treated at length in section V. O., infra. Therefore, it is sufficient to treat it only by reference here. To adjust for the use of a 46%, rather than a 48%, federal corporate tax rate, the Office of Consumer Advocate recommends that $1,653,000 be deducted from the Company's accumulated deferred income tax claim.

Third, consistent with the recommended treatment of the impact of accelerated depreciation on state income taxes employed by Mr. McAloon in his direct testimony and explained by this Office in section V. P., infra, the Office of Consumer Advocate recommends that deferred income taxes be reduced by $935,000 to reflect the flow through of these state income tax deductions. C.A. Statement 2-A, p. 30, RB-10; C.A. Wrap Up Position, Sch. 2, Revisions of Direct Testimony.

Last, in keeping with the recommended use of a 40 year life for TMI-1, instead of the Company's recommended 34 year life, the Office of Consumer Advocate has adjusted deferred income taxes downward by $175,000. C.A. Wrap Up Position, Sch. 2, Revisions of Direct Testimony. Since TMI-1 will be depreciated over a greater number of years, the rate of both book and accelerated depreciation will be lower and the difference between the two will decrease proportionately. Consequently, the difference between accelerated and book will be lower, thereby causing the amount of accumulated deferred income taxes to be lower.

For the aforementioned reasons, the Company's claim for accumulated deferred income taxes should be reduced by $5,339,000.

N. The Company's Deduction For Income Tax Refunds Should Be Increased By $68,000 To Reflect The Average Rather Than Year End Level Of Refund Amortized During The Test Year.

In its original filing, the Company claimed $829,000 for income tax refunds. Met-Ed Exh. B-2, C-2, p. 1. As shown by Met-Ed's income statement, this amount reflects a full year's amortization of income tax refunds during the test year. Met-Ed Exh. B-2, G-2, p. 1. In conformity with the position taken by the Consumer Advocate throughout this rate base section that an average rate base be used, the Office of Consumer Advocate recommends that the Company's claim be increased by $68,000 to reflect one-half, or the average, income tax refund amortized during the test year. C.A. Statement 2-A, p. 31.

O. The Company's Deduction For Operating Reserves Should Be Increased By $371,000 To Include All Operating Reserves Recognized By The Commission At An Average Test Year Level.

In its original filing, Met-Ed claimed $986,000 for "Operating Reserves-Pensions" as a deduction from rate base. Met-Ed Exh. B-2, C-2, p. 1. In its wrap-up position, the Company reduced this amount by $527,000 to $459,000 to reflect deferred income taxes associated with the pension. Met-Ed Exh. B-138, B-143. As noted by Mr. Madan, this amount represents the year end budgeted level of the reserve for unfunded pensions. C.A. Statement 2-A, p. 31. The Office of Consumer Advocate recommends that the original claim be increased by $180,000 to reflect the average balance of unfunded pensions during the test year and increased by $191,000 to reflect another source of operating reserves, labeled "Amortization Reserve-Federal" on the Company's Balance Sheet. C.A. Statement 2-A, pp. 31-2. Although the Consumer

Advocate does not contest the Company's adjustment for taxes, it should be noted that a 46% tax adjustment is not reflected in the Consumer Advocate's Wrap Up position.

Operating reserves, as explained by Mr. Madan, represent non-investor supplied funds. C.A. Statement 2-A, p. 32. In this respect, they are similar to unamortized gain on reacquired debt and customer deposits. Because these funds are not provided by investors, "any assets financed by this type of capital should not be allowed to earn a return. Therefore, appropriate treatment would be a deduction from measures of value." Pa. PUC v. Metropolitan Edison Co., R.I.D. 434 at 9 (September 18, 1978), citing Brief for the Pennsylvania Office of Consumer Advocate.

In R.I.D. 434, the presiding Administrative Law Judges and the Commission accepted the Consumer Advocate's position and deducted Amortization Reserve--Federal as well as Operating Reserve--Pensions from rate base. C.A. Statement 2-A, p. 32. Since that point in time, Amortization Reserve-Federal has been moved to a separate account. However, as noted by Mr. Madan:

> . . . the reclassification of the account [under the Uniform System of Accounts] has been changed, but I don't believe it changes the options available for rate base treatment. Tr. 1760.

Since the source of the funds has not changed, the funds are still "non-investor supplied capital, regardless of what they are labeled by FERC." Id. Therefore, the treatment of those funds as deductions from rate base should not be changed by the Commission. Consequently, the Office of Consumer Advocate recommends that $191,000 be added to Operating Reserves, or deducted separately from rate base, to reflect "Amortization Reserve-Federal." Met-Ed Exh. B-2, F, p. 2.

P. The Company's Rate Base Should Be Reduced By $1.570 Million To Reflect The Unamortized Balance Of The Deferred Income Tax Reduction.

As noted in Section I, L. above, the effect of the reduction in the maximum federal corporate income tax rate is a $1,653,000 decrease in the Company's total liability. The Company has accrued deferred federal income taxes at a 48% rate, but will only have to pay back those taxes at a 46% rate. Therefore, the balance should be credited to the ratepayers through an increase in pro forma operating income.

Given the size of the reduction and the fact that such a reduction is not a recurring event, Mr. McAloon has recommended that this reduction be amortized over a ten year period and that the unamortized balance be included in measures of value as a rate base deduction. C.A. Statement 2-A, p. 54. This recommendation is consistent with the Commission's treatment of income tax refunds and the Consumer Advocate's recommended treatment of deferred energy costs incurred under the old clause. Since the principle behind all three amortizations is the same, so, too, should the practice be the same, i.e. all three should be amortized over a ten year period with the unamortized balance reflected in rate base.

In order to reflect an average rate base, one-half of the amortized income tax reduction for the test year should be subtracted from the total $1,653,000 tax reduction. Consequently, the unamortized balance included as a rate base deduction should be $1,570,000.

Q. <u>Rate Base Treatment-TMI-2-A Significant Addition To Rate Base Near The End Of A Test Year Should Be Accorded Year End Rate Base Treatment With Revenues And O&M Expenses Taken As They Fall.</u>

The Company had used a normalized year end measure of value for TMI-2, similar to its treatment of other rate base items. Met-Ed Exh. B-2, C-2, p. 20. The Office of Consumer Advocate also recommends year end rate base treatment for TMI-2, based on the testimony of Mr. Madan.

According to the most recently received information TMI-2 was placed in service on December 30, 1978, within four months of the end of the test year. The addition of this plant will increase the Company's net measure of value by approximately 50%. Met-Ed Exh. B-2, C-2, p. 1. Mr. Madan, therefore, recommends that a year end rate base be employed in order to recognize this significant change in the Company's rate base and to provide a certain cushion against inflation. <u>See</u> C.A. Statement 2-A, p. 9.

In addition, Mr. Madan also recommends, and the Consumer Advocate supports the position, that revenues <u>not</u> be adjusted to a year end level for TMI-2. Since Mr. Hafer indicates that the Company's base revenues will increase by approximately $8 million in 1979 and $4 million in 1980, Met-Ed Exh. K-8, it is clear that the decision not to include year end revenues associated with TMI-2 provides another cushion to the Company against inflation. See C.A. Statement 2-A, pp. 9, 59.

In order to match the level of operating and maintenance (O&M) expenses with the level of revenues provided by the Company and accepted by the Consumer Advocate, Mr. McAloon recommends that O&M expenses for TMI-2 be included to the extent they will be incurred during the test

year. He also cites two other reasons for taking expenses "as they fall:" First, the use of a future test year offsets attrition and eliminates the need for making pro forma expenses changes outside the test year; and second, the recognition of O&M expenses outside the test year would necessitate a showing that these expenses were clearly incremental to the entire system and not offset in any way. See C.A. Statement 2-A at 59. Consequently, the Office of Consumer Advocate recommends the inclusion of operating and maintenance expenses only to the extent to which they are incurred during the test year for TMI-2.

Last, the Office of Consumer Advocate recommends the inclusion of a full year of capital related costs for TMI-2. This is yet another offset against inflation which brings the Company's net measure of value and operating income closer to a year end level.

It should be noted that in RID 392, the first Pennsylvania case filed with data based on a future test year, the Office of Consumer Advocate recommended similar treatment for Homer City #3, a major coal plant scheduled to come on line at the end of the test year. In that case the overall rate base was averaged; however, the rate base for Homer City #3 was taken to a year end level. In addition, revenues and O&M expenses were included to the extent to which they occurred during the test year, and a full year of capital related expenses was recognized. Brief for the Pa. Office of Consumer Advocate at 66-68. Pa. PUC v. Penna. Electric Co., RID 392. The Commission accepted the position of the Office of Consumer Advocate. However, it did not recognize any O&M expenses for Homer City #3 because of the delay in its service date. Pa. PUC v. Penna. Electric Co., R.I.D. 392 (June 28, 1978) Consistent with its position in the Penelec case and the

Commission decision in that case, the Office of Consumer Advocate recommends the same treatment for TMI-2 in this case.

R. TMI-2--The Company Updated Rate Base Claim Of $355,809,000 Is Overstated By $852,000 In Post-Test Year Construction Costs.

In its initial filing, Met-Ed claimed $343,651,000 for TMI-2 electric plant in service, reflecting an estimated year end level of investment. Met-Ed Exh. B-2, C-2, pp. 1,20. During the course of the rate proceeding, Met-Ed submitted an updated estimate of $355,809,000. Met-Ed Exh. E-2-1 as well as several other estimates since that time. TMI-2 became operational on December 30, 1978. Therefore, significant construction costs associated with TMI-2 have still not been reported, at least to the extent to which AFDC has continued to accrue. Consequently, the Office of Consumer Advocate, in its direct testimony and wrap-up position, has used the estimate of $355,809,000, $343,651,000 plus $12,158,000, even though more recent, but n t final, estimates have been provided by the Company. C.A. Wrap-Up Position, Sch. 2.

An element of confusion has been added by the Company. Mr. Huff stated on December 15, 1978, that the Company's claim is represented by the $355,809,000 estimate.

> Q. Mr. Huff, yesterday Mr. Arnold provided some updated figures for the construction costs for TMI No. 2. Will you tell us whether or not these updated figures are included as part of Respondent's claim in this proceeding?
>
> A. No. They are not. The company's claim for Three Mile Island No. 2 is represented on Exhibit B-143, page 8 of 11, line 1, TMI No. 2 plant costs, which were derived from Mr. Arnold's Exhibit E-2-1 of $55,000,000--excuse me--355 million, 809,

> and that's the claim at the full dollar amount that was expected at that time for the completion cost of the plant. That number was derived with respect to, I believe, a November 1 service date. The numbers Mr. Arnold indicated in the record yesterday are later, updated numbers from that. However, we have not adjusted our claim. As indicated in the testimony, December 15th, the actual was somewhere in the neighborhood of $357,000,000, so that our claim of $355,000,000 is substantially lower than the number we will have already experienced by December 15th.

However, it is clear from the Company's wrap-up schedule, Met-Ed Exh. B-148, that a higher number is used.

Consistent with its treatment of out-of-period adjustments to future test year data, see Section I. A., supra, the Office of Consumer Advocate has reduced this claim for electric plant in service by $852,000, which consists of construction costs expected to be incurred after March 31, 1979. Mr. Huff testified as follows:

> Q. E-2-1 shows 356 million dollars.
>
> A. 355,809,000.
>
> Q. Fine. And that number represents the total amount Met-Ed plans to spend on TMI-2; is that correct?
>
> A. Yes, sir.
>
> Q. And included in that claim, are there projected expenditures into 1979?
>
> A. Yes, sir. Mr. Hafer testified to that on notes of transcript 495.
>
> Q. And that [1979 expenditures] is approximately $1,380,000?
>
> A. 1,384,000.
>
> Q. Of that amount, . . . about $532,000 of that amount will be expended during the last three months of the test year in this case; is that correct, sir?

> A. That is correct.
>
> . . . .
>
> Q. Yes. There is approximately $852,000 of TMI related expenditures that will not be expensed until after the test year.
>
> A. My calculation is $854,000 to be expended from April 1, 1979, through September 30, 1979.
>
> Q. So, in this case, you are claiming year end rate base, but you are adding $852,000 in expenditures to that claim which are projected to be spent after the test year; is that correct?
>
> A. Yes, sir. Tr. 885-6.

As noted in Section I. A., supra, the Commission in R.I.D. 392, the first future test year case, refused to allow an out-of-period adjustment with regard to "cleanup costs" for Homer City No. 3. Since the Homer City No. 3 clean-up costs are directly analogous to the TMI-2 out-of-period costs, it is appropriate to quote at length from the Commission's decision regarding this point.

> The Consumer Advocate would eliminate about $4.9 million of the company's claim for Homer City No. 3 electric plant in service. These relate to "cleanup costs" scheduled to occur sometime in 1978 after the plant goes into commercial operation. These costs cover such items as painting, final insulation of a boiler building and final payments to contractors. The Administrative Law Judge rejected the Consumer Advocate's adjustment and an exception has been taken.
>
> We agree with the Consumer Advocate. These are not expenses of a nonrevenue-producing nature such as those which ordinarily would be recognized in rate base as construction work in progress. Instead, these proposed costs are related to revenue-producing or expense-reducing property and differ little from other 1978 additions to electric plant in service. They should be omitted from Homer City No. 3 electric plant in service.

Pa. PUC v. Pennsylvania Electric Co., R.I.D. 392, at 7 (June 28, 1978).

For the aforementioned reasons, $852,000 should be deducted from TMI-2 electric plant in service of $355,809,000.

S. TMI-2--The Company's Claim For Depreciation Reserve Should Be Increased By $3,901,000 To Reflect A Full Year's Impact Of Depreciation And A Forty Year Life For TMI-2.

In its initial filing, the Company claimed $5,993,000 in depreciation reserve for TMI-2. This is based on the estimated TMI-2 electric plant in service claim of $343,651,000, and a thirty-one-year life for TMI-2. Met-Ed Exh. B-2; Summary of Reasons, p. 6; Id., D-2, p. 2. In addition, this figure reflects only one-half year of depreciation, although the Company claims a full year of depreciation expense on its income statement. Met-Ed Exh. B-2, D-2, p. 2. Compare Id., C-2, p. 1 with Id., G-2, p. 1.

The Office of Consumer Advocate recommends that this amount be increased by $5,993,000 (the other one-half year) to reflect a full year of depreciation reserve. This comports with sound regulatory principles and the general methodology for TMI-2 explained in Section I. Q., supra. A public utility cannot recover both a depreciation expense and a return on investment for a given plant for the same period of time. This would provide a windfall to investors. Therefore, if a full year of depreciation is taken as an expense, the investment representing that expense must be removed from rate base through inclusion of an appropriate amount in depreciation reserve. This is a normal accounting procedure, i.e., when you debit the expense you credit the reserve. Since the Office of Consumer Advocate has recommended that capital related expenses associated with TMI-2 be annualized, a full year of

depreciation should be reflected in the depreciation reserve as well as in the income statement. C.A. Statement 2-A, TMI-RB-2.

In Section I. D., supra, numerous reasons were given for using a forty-year life for the depreciation of nuclear generating stations. These reasons support a forty-year life for TMI-2 as well as for TMI-1. If the Commission accepts the Consumer Advocate's reasoning in Section I. D., it should also apply that reasoning to TMI-2. Therefore, consistent with the position taken with regard to TMI-1, the Consumer Advocate recommends that depreciation reserve be decreased by $2,485,000 to reflect a forty-year life for TMI-2. C.A. Wrap-Up Position, Schedule 2, Revisions of Direct Testimony.

Finally, the Office of Consumer Advocate recommends that depreciation reserve be adjusted upward by $393,000 to reflect the updated claim for TMI-2 electric plant in service as adjusted for post test year investments. See Section I. R., supra. The methodology for this adjustment is clearly explained by Mr. Madan in his direct testimony. C.A. Statement 2-A, TMI-RB-2.

For the aforementioned reasons, the Office of Consumer Advocate recommends that TMI-2 depreciation reserve in its initial filing be increased by $3,901,000.

T. TMI-2--The Company's Initial Credit For Deferred Energy Costs Due To TMI-2 Is Understated By $258,000.

In its initial filing, Met-Ed claimed a credit for deferred energy costs under the new energy clause for TMI-2 of $6,702,000. This claim was net of taxes. Met-Ed Exh. B-2, C-2, pp. 1, 25. Due to the change in the maximum federal corporate income tax from 48% to 46% effective January 1, 1979, Met-Ed revised its claim by crediting an additional $258,000 to TMI-2. Met-Ed Exh. B-143, p. 10.

The Office of Consumer Advocate recommends acceptance of the Company's wrap-up position. C.A. Wrap-Up Position, Sch. 2. This position is consistent with the treatment of non-TMI-2 related deferred energy costs under the new clause. See Section I. ___, supra.

U. TMI-2--The Company Has No Requirement For Cash Working Capital For TMI-2.

In its initial filing, the Company claimed $1,503,000 for cash working capital for TMI-2. Met-Ed Exh. B-2, C-2 at 1. In its wrap-up exhibit, Met-Ed revised this claim downward. However, the Office of Consumer Advocate submits that Met-Ed has no need at all for cash working capital for TMI-2. C.A. Statement 2-A at 35.

This fact is readily demonstrated by Mr. Madan's showing that two unaccounted for sources of non-investor supplied capital meet and even exceed Met-Ed's claimed need for cash working capital for TMI-2: funds for payment of interest on debt and funds for payment of dividends on preferred stock provided by ratepayers in advance of payment. C.A. Statement 2-A at 35, TMI-RB-4. Mr. Huff admitted that these prepayments were not reflected in Met-Ed's cash working capital calculations. Tr. 880.

The propriety of considering these prepayments in arriving at an estimate of the Company's cash needs is treated at length in Section I. K; therefore, it is sufficient to treat it by reference, here. In addition, it should be noted that in order to avoid any possibility of double counting for TMI-2 and non-TMI-2 related debt and interest prepayments, each set of prepayments was calculated separately on the basis of the rate base to which each pertains. C.A. Statement 2-A, RB-8, TMI-RB-4.

Therefore, the amount of $1,503,000 should be deducted from rate base to reflect the fact that Met-Ed has no working capital requirement for TMI-2.

V. TMI-2--The Company's Initial Claim For Deferred Income Taxes Is Understated By $7,126,000.

In its initial filing, Met-Ed claimed $4,494,000 in accumulated deferred income taxes for TMI-2. Met-Ed Exh. B-2, C-2, pp. 1, 27. This amount reflects approximately one-half year of deferred income taxes based on the Company's initial filing estimate for TMI-2 electric plant in service. Id. The Office of Consumer Advocate recommends several adjustments to this claim.

First, the Consumer Advocate recommends that deferred income taxes for TMI-2 be increased by $4,494,000 to reflect a full year of deferred taxes. Similar to Met-Ed's mismatched treatment of depreciation expense and depreciation reserve for TMI-2, the Company has claimed a full year of income taxes on its income statement, but it has reflected only one-half year's impact on rate base. C.A. Statement 2-A, p. 36. Therefore, in order to properly match expenses with rate base deductions, a full year of deferred income taxes should be reflected in rate base. It should be noted that annualization of deferred income taxes is consistent with the treatment of all capital related expenses for TMI-2 recommended by the Consumer Advocate. See Section I. Q., supra.

Second, the Consumer Advocate recommends that deferred income taxes for TMI-2 be increased by $6,590,000 to reflect tax savings realized by the Company due to the allowance of accelerated depreciation for the 1978 calendar year. As explained by Mr. Madan:

> Q. Would your (sic) explain your recommended adjustment to deferred income taxes reflecting the impact of the timing differences between when Met Ed recognizes TMI-2 for book purposes and when they recognize it for tax purposes.
>
> A. Yes. If TMI-2 is placed in electric plant in service prior to the end of 1978, Met Ed, will be allowed to take six months of accelerated tax depreciation for the 1978 calendar year. At the same time when TMI-2 becomes commercial on November 23, 1978 as is the latest estimate, by year end there will only be slightly over one month's depreciation recorded on the books for calendar 1978. This five month differential in depreciation will result in an additional $12,326,000 of tax depreciation which Met Ed has not reflected in its filing. Under normal operations these timing differences are usually minimal, but due to the impact on rate . e of this one addition (approximately 50%) and its timing, I believe an adjustment should be made to reflect the impact on deferred income taxes. Therefore I recommend a $6,590,000 increase to the Company's claim for deferred income taxes related to TMI-2. The calculations are illustrated on Schedule TMI-RB-3, p. 2. If the actual in service date is different than November 23, 1978 then my adjustment should be changed accordingly. C.A. Statement 2-A, p. 37.

On rebuttal, Mr. Huff alleged that since the Consumer Advocate was reflecting one year of deferred taxes associated with TMI-2, its request for additional deferred taxes would be "placing that timing difference as if it had occurred in 1977." In addition, Mr. Huff noted that if that additional amount were deducted from rate base, the Company would not earn a return on it. Tr. 2322.

It is clear from the testimony of Mr. Huff and Mr. Madan that the additional $6,590,000 is due to an event well within the test year. As stated by Mr. Huff:

> It is due to "the timing difference between the time in 1978 in which the plant goes in service December of . . . 1978--for which the company, on its books, would record one month of depreciation, but for tax purposes, would include six months' depreciation under tax law convention.

Tr. 2321-22. It is also clear that this results in a tax depreciation benefit to the Company. The only question is whether the ratepayers or stockholders should reap this benefit.

As noted by Judge Matuschak in his Recommended Decision in Pa. PUC v. Philadelphia Electric Co., R.I.D. 438:

> [it is a] well-settled Commission principle that tax depreciation benefits must either be flowed through to the benefit of the ratepayer, or, if not, then deducted from rate base. Id. at 69.

Since Met-Ed has not flowed through this benefit, the Commission should accept the Consumer Advocate's recommendation and deduct it from rate base.

Treating the use of the same convention in the Philadelphia Electric case, Judge Matuschak also answered Mr. Huff's concern that the Company would not earn a return on this amount. It should be noted that the position of the Company and the position of the Consumer Advocate in that case .re analogous to their respective positions in this case.

> The taxes are real. The funds to cover these taxes, through normalization, came from ratepayers. Id. at 68.

> If this amount is not deducted, stockholders will be earning a return on money they never provided. Id.

> Under PECO's proposal, the stockholders would be permitted to retain these tax benefits on which they would earn a return; and the ratepayers would be obligated to provide a return to the stockholders on funds made available by the federal government. Id. at 69.

For the aforementioned reasons, $6,590,000 should be deducted from rate base to reflect the timing difference, and resulting tax benefit, between book and accelerated depreciation. It should be noted that the Consumer Advocate's deduction is understated because it reflects four-tenths of a year difference based on a November 23, 1978, in-service date when the actual in-service date was December 30, 1978, which creates a one-half year timing difference. Therefore, this figure will have to be updated by the Commission when TMI-2's status becomes certain.

Four additional changes are recommended by the Consumer Advocate, all of which are necessary to maintain consistency with other rate base and expense adjustments and all of which are consistent with treatment of non-TMI-2 deferred income taxes. Therefore, the adjustments will be merely recited here since the explanations and justifications have been provided in Section I. Q., supra.

Deferred income taxes should be increased by $296,000 to reflect the increase in TMI-2 electric plant in service recognized by the Consumer Advocate in Section I. Q., C.A. Statement 2-A, TMI-RB-3.

Deferred income taxes should be decreased by $532,000 to reflect the change in the federal corporate income tax rate from 48% to 46%, Id., and by $1,045,000 to reflect the effect of the recommended state tax flow through to ratepayers. Id., C.A. Wrap-Up Position, Sch. 2, Revisions of Direct Testimony.

Last, deferred income taxes should be reduced by $2,677,000 to reflect use of a forty-year life for TMI-2 depreciation purposes. Id., See Section I. S., supra.

In total, the Consumer Advocate submits that $7,126,000 should be added to TMI-2 deferred income taxes for the reasons stated above.

II. RATEPAYERS SHOULD NOT BEAR 100% OF THE COST ESCALATIONS ASSOCIATED WITH THE DELAYS IN CONSTRUCTION OF TMI-2.

A. The Management Review Of The TMI-2 Construction Project Gives Ample Proof Tha' "he TMI-2 Construction Project Was Frought With Poor Mana,ement Practices And That Such Practices Contributed In Large Part To Construction Delays And Cost Escalations.

In 1969 GPU and its subsidiaries commenced the construction of what was to become TMI-2 nuclear power plant. The plant at that time was estimated to cost $190 million and was to be completed in less than four years. C.A. Statement 2-B, A-1. TMI-2, which was placed in service on December 30, 1978, has taken over nine years to complete. According to the latest estimates, TMI-2 will cost over $700 million.

Although GPU's overall nuclear experience with the construction of nuclear power plants has been similar to that of most other utilities, C.A. Statement 2-B, A-18, its experience with TMI-2 has been worse than average. For example, as opposed to the average commercial operation date slippage of 3 years, TMI-2 experienced over 5 years of slippage. C.A. Statement 2-B, A-16.

Regardless of how TMI-2 fairs in comparison with the construction of other nuclear power plants, one must look at the management practices used at TMI-2 to determine whether the claimed construction costs are just, reasonable and prudently incurred. To this end, the management consulting firm of Touche Ross & Co. was engaged to conduct a management review of the construction management practices of TMI-2.

An understanding of the management review process is necessary to evaluate the kinds of evidence which the Touche Ross review brought to light.

The management review was an in depth examination and evaluation of four key areas of GPU management: (1) the organization involved in the construction of TMI-2; (2) the relevant policies with respect to TMI-2; (3) the planning procedures employed; and (4) the systems of reporting and control. Tr. 2463.

From Touche Ross & Co., Mr. Madan was the partner who sup(rvised the project, Mr. Cooper was the project manager and Mr. Gundersen was the senior consultant. Mr. Heward, Manager of Projects at GPUSC, and Mr. Bohn, Auditing Manager, Construction and Corporate at GPUSC, were full-time participants in the review.

The data used in the review came in large part from a series of interviews with key participants in the project from GPU, GPUSC, and to a lesser extent, from the architects and engineers, Burns and Roe, and the constructors, UE&C. <u>See</u> Tr. 2463; C.A. Statement 2-B, Letter at 3-5, and data requested from GPU and GPUSC. Tr. 2463-4. Therefore, all of the data is, in effect, "company data," although the evaluation of that data must be attributed solely to Touche Ross & Co. In addition to the interviews, Touche Ross agreed, at the outset, to schedule several meetings with GPU to review the Touche Ross findings. As stated by Mr. Cooper, the purpose of the meetings was threefold: First, to say to GPU, "here are the facts as we understand them"; second, to ask GPU to "review those facts. . . to insure that they were accurate"; third, to say to GPU, "here are the facts as we understand them, here are the facts which you now agree are accurate, those are the facts we are going to use." Tr. 2551.

The management review process used by Touche Ross was put into a context with which we are all familiar, the ratemaking process, by Mr. Madan:

> I would note that the procedure we used is not different to the procedure that we have used with the GPU organization in many rate proceedings. We have, in essence, agreed on numbers and have agreed to differ on principle, if you would, on certain issues and have agreement on the numbers before we argue the issues. Tr. 2599.

At these meetings, the "Letter", "Report" and "Conclusion" sections of the Touche Ross review, C.A. Statement 2-B, had all been made available to and discussed with GPU personnel in their draft form by May of 1978. As characterized by Mr. Hafer, the changes from draft to final form "have been minimal." Tr. 2725. The "Testimony" section was not made available to GPU until October of 1978, in the course of the New Jersey and Pennsylvania rate proceedings involving Jersey Central Power and Light and Metropolitan Edison Company, respectively. However, GPU was aware in April or May of 1978 that there might be a rate case impact because the draft conclusions reviewed by GPU included the following statement:

> Rate Case Impact
>
> This section will be dealt with in the direct testimony of Mr. Madan in the pending rate proceeding. C.A. Exhibit 12 at 20.

As a result of this review process, Touche Ross made a number of significant findings. Looking at the general picture, Touche Ross concluded

> . . . that there was significant cost escalations on the TMI-2 project. Much of the cost escalation came about from the fact that the company had not anticipated or projected at that time the order of magnitude of the projects they were undertaking. Tr. 2464. See also C.A. Statement 2-B, Conclusions at 2.

Consequently, when one looks at the individual components, i.e. organization, policies, planning and the system of business controls, one sees a "variety of weaknesses." Tr. 2464.

1. Organization.

As stated by Mr. Cooper,

> . . . we believe that if a company is about to invest millions of dollars in an undertaking, that they ought to have internally an organization that can effectively manage that investment for them, . . . [i.e.] a project management organization. Tr. 2531.

Instead, it was not until several years into the project that the Company formed, on a central basis, a project management organization, and then, once formed, it took some time to grow. Tr. 2531; C.A. Statement 2-B at A-36.

> . . . as a result of not having that organization in place prior to project start up, there were repeated changes in project management responsibility, in construction responsibility, and project managers, and so on. [See C.A. Statement 2-B at A-36, A-42]. . . [A]gain, because they had not formed prior to the undertaking of this task, a service company which could handle centralized purchasing for them, contracting negotiations, internal audit, data processing and so on, they were, with respect to people that build large things somewhat behind the times." [See C.A. Statement 2-B at A-39, A-49]

2. Policies.

As stated by Mr. Cooper, there should be

> . . . a clear, articulate, well defined set of policies that the organization would be required to follow. . . [in order to be] effective and efficient, Tr. 2532, . . . policies which define responsibility and accountability. Tr. 2533A

What Touche Ross found instead at GPU, was that a simple matrix of responsibility "which spells out who the players will be, and what there reporting relationships will be," had not even been developed until 1972. Tr. 2531. See C.A. Statement 2-B at A-38. In addition,

the level of signature authority with respect to purchasing was not developed until mid-1975. Furthermore, there was no routine internal auditing procedure until late 1973. Tr. 2531-1. See C.A. Statement 2-B at A-41. Last, once ongoing audits of TMI-2 were begun by GPUSC in late 1974, the findings and recommendation contained therein did not properly represent the scope and magnitude of the problems at TMI-2. C.A. Statement 2-B at A-41. In short, ". . . it wasn't clear, policy-wise, what the particular participants were supposed to be doing." Tr. 2531.

3. Systems of Reporting and Control

As stated by Mr. Cooper, reporting on a project this size should "emphasize matrix management responsibility," Tr. 2533, which should organize the project horizontally as well as vertically.

> . . . when you build a plant, not only do you have to build down a variety of disciplines--civil, piping, electrical, instrumentation and so on, it is necessary to understand how all of those disciplines are being integrated to make sure that you have a reactor building, . . . a turbine building, and so on. Tr. 2533.

In addition, project control systems, including accounting, scheduling/CPM expenditure forecasting, estimating and cost reporting and material control should be adequately staffed and capable of handling "thousands of people," "millions of dollars" and "thousands upon thousands of transactions." See Tr. 2532.

Instead, Touche Ross found that the reporting system for TMI-2 did not emphasize matrix management responsibility, i.e., it was lacking the horizontal element in large part. Tr. 2533. Second, if you look at the cost and scheduling system,

> "the Company was virtually, with respect to data processing, well behind the times. . . . In addition, if . . . you look at the full time

> cost in [sic] schedule engineers on the site, . . . it fluctuated between one and three people to manage the company's costing [sic] schedule on a day to day basis. Tr. 2532-3; C.A. Statement 2-B at A-40.

Third, the reporting mechanisims from both the architect and engineer as well as the constructor were very confusing. Tr. 2533. "Reports tended to average an unaverage situation." "Labor hours expended and work completed were subject to different time bases of reporting." In addition, "[r]eports did not measure individual supervisors performance below the functional superintendent level." C.A. Statement 2-B at A-58.

Last, even when the reporting was accomplished, the standards by which those reports were to be judged "changed frequently enough that you had a moving average." See C.A. Statement 2-B at A-58.

> So that it was difficult to ascertain percentage of completion. It was difficult to ascertain variance analyses. It was difficult to ascertain whether or not you were bringing the plant in on time for the right amount of money. Tr. 2533.

4. Planning

Consequently, because of the lack of organization for managing a project of this size, because of a failure to articulate responsibilities, because of an underdeveloped reporting system and standards which changed as frequently as they were made, it was not only impossible to ascertain where the project was at any one point in time, it was also impossible to plan for the future. As a result, management was always in a position of reacting rather than acting. It was never in a position to accurately anticipate future events. See Tr. 2475.

5. Conclusion

In order to evaluate which costs could be avoided by the implementation of recommended management techniques and which could not,

Touche Ross categorized the reasons for cost escalation into (1) "those reasons over which the Company had no effective control," and (2) "those reasons over which the Company did have effective control." C.A. Statement 2-B, Conclusion at 2. The following reasons for cost escalation were judged to be those over which the Company had effective control:

1. Corporate management significantly underestimated the scope of its nuclear projects with respect to resource requirements, time, and the evolving environmental and nuclear regulations. C.A. Statement 2-B, Conclusions at 2, Report at A-23. The impact of undertaking two major generating projects-TMI-1 and OC-2 (later TMI-2), while significantly underestimating the resource requirements, was eventually to delay the projects and severly escalate the costs as the true requirements became known. Id., Conclusion at 3.

2. Construction budget cutbacks were frequent and severe. While some budget cutbacks were inevitable, the amount was always subject to discretion. In addition, failure to accelerate construction funds as required by the construction manager in relatively modest amounts (approximately $10-20 million cut back in 1976 for example) in the final stages of completion resulted in a possible extension of completion date of several (4 to 6) months, as well as a measurable decrease in labor productivity, which had been ascribed to lower worker morale resulting from the cut backs. Id., Conclusion at 6. See Id., Report at A-22, A-32, A-34, A-46.

3. The Company, through their construction manager, did not procure sufficient project and construction management personnel to control and monitor the progress of the projects at in-depth levels. Id., Conclusion at 6.

4. The skilled labor force was shifted downwards to meet/equalize expenditures of available budget monies. As a result,

peak construction requirements (force labor) were not always met. Id., Conclusion at 6. See Id. Report at A-46.

5. The reporting of variances, especially the labor content of specific tasks, in a meaningful and timely fashion for project management was inadequate to effect control. By averaging over time labor hours per construction task, significant changes and/or variances in labor hours cannot be readily identified. Id., Conclusion at 7. See Id., Report at A-58.

6. Rate Base Treatment Of Findings

By evaluating the management practices at GPU against recommended management practices and by isolating controllable reasons for cost escalation of the project, Touche Ross is not saying that if the recommended, or if better, management practices had been used, GPU would have met the original cost and scheduling estimates. Touche Ross is saying, however, that they would have had a better chance of doing so. As stated by Mr. Cooper:

> Certainly, had they been well organized, had they had appropriate systems and controls, the right policies and better planning on day one, management would have been, just be [sic] definition of the structure and some of the tools available, . . . in a much better anticipatory mode, and they should have been able to respond more quickly to trends and/or define problems. Whether or not that means, based upon some of the now controllable factors, they could have brought it home on time and for the right amount of money, I don't know. . . . certainly they would have had a better crack at it. Tr. 2482.

Because of the difficulties of quantifying the delays and the resulting costs associated with each, Touche Ross took a conservative approach to ratemaking treatment of the delays. First, it recognized that there were over five years of delay. Tr. 2516. Second, it analyzed whether the controllable reasons for delay could have been

avoided by the Company through the application of additional resources. Third, it evaluated the availability of those resources.

As a result of this analysis, Touche Ross concluded that "there appears to be evidence to suggest that in the 1970 to 1974 period, the Compan elt that its financial condition did not allow the original construction schedule to continue." C.A. Statement 2-B, Testimony at 8. However, although 1970 to 1974 may have been the period in which most of the slippage occurred, significant slippage also occurred after that date, C.A. Statement 2-B at A-8; Id. Testimony at 8-9.* During this time period, especially during 1976 and 1977, the Company had access to additional funds, Id, Testimony at 10; Id., Report at A-8, A-9 and if it had applied those funds to TMI-2 it could have accelerated the in service date of TMI-2.

Recognizing that the "level of construction expenditures is not an exact science and is subject to certain management discretion," Id., Testimony at 9, Touche Ross only quantified one delay out of many which were controllable and which could have been avoided--a four to six month delay in 1976-1977. Ratemaking recognition was recommended for this delay because "it is one of the few measurable delays." Tr. 2499.

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* It should be noted that the formal planning estimates on C.A. Statement 2-B at A-1 do not show the 1975-77 delays. Reliance on the formal planning estimates is misleading, as admitted by GPUSC personnel, because the in service dates stated therein have the following characteristics:

(1) They are all set at the 5th month of the year for PJM fiscal planning purposes; Tr. 2700-1; Tr. 2749 and

(2) They all provide for contingency between the target dates that the project was working towards and what we used as a base for financial in service planning. Tr. 2750.

To quantify the cost of that 4 to 6 month delay Touche Ross looked at the four most significant ways, in which delays escalate costs:

1. Higher prices due to inflation in later years.
2. Additional costs due to paying fixed overheads for a longer period of time.
3. Additional costs for the capital cost of carrying the amounts expended to date (i.e. additional AFDC).
4. Additional costs due to additional regulatory and safety requirements which became mandatory in later periods. C.A. Statement 2-B, Testimony at 7; Report at A-22.

In the 1975 to 1978 period, it identified the following costs associated with #1-3 above. It should be noted that Touche Ross did not attempt to individually quantify and did not include in its calculation the costs associated with regulatory and safety requirements, non-regulatory design developments or changes in productivity. Therefore, the following cost estimate is conservative.

COST OF DELAY
1975-1978

		1975-1978 $ Impact 3 years
1.	Inflation	
	°Craft rate increase	$ 9.0M
	°Material and subcontract escalation	6.3
2.	Overhead	
	°Direct and indirect labor escalation	13.7
	°A/E escalation (also inflation)	9.6
	°Construction management	1.4
	°Temporary facilities and services (also inflation)	6.7
	°Owner's engineering and project management	5.7

COST OF DELAY
1975-1978

	1975-1978 $ Impact 3 years
°Start up and test personnel	5.7
°Insurance	1.1
3. AFDC	100.6
Total - 3 year	159.8M
Annual Impact	53.3M

C.A. Statement 2-B,
Report at A-8,9.

Based on the cost of $53.3 million for one year of delay, Touche Ross estimated the cost of 4-6 months of delay to be $18 to $26 million. Using the smaller number and the fact that Met-Ed owns 50% of TMI-2, Mr. Madan recommended that $9 million be deducted from rate base.

B. Met-Ed's Rebuttal Testimony Fails To Prove That The Expenses Associated With Construction Delay At TMI-2 Were Prudently Incurred.

In response to the findings of mismanagement of the TMI-2 construction project, Met-Ed presented five witnesses. The witnesses did not rebut the management standards used by Touche Ross. They did not address the opinion of Touche Ross that GPU failed to meet these standards. They did not address the findings that many of the delay and cost escalations were controllable and that management failed to control them. Instead, they presented the following lines of argument, addressing themselves in particular to the specific four-six month delay for which a rate base deduction was recommended: (1) The management review is irrelevant since management of the TMI-2 construction project

can only be judged by a comparison of that project with other contemporary nuclear power plant projects. Memorandum re Relevancy of Touche Ross & Co. "Review" of TMI-2 Constrrction Project; and Objective Criteria to be Utilized In Evaluating "Review," if Relevant, (Nov. 1978); (2) The failure to accelerate construction funds in 1976 was unavoidable due to financial situation of the Company at that time; and (3) The failure to accelerate construction funds in 1976 did not cause a four-six month delay in the in-service date for TMI-2. Each of these will be addressed separately, in relation to the evidence presented by Touche Ross to the contrary.

1. The Construction Management of TMI-2 must be judged by general management criteria, not by a mere comparison of TMI-2 with other nuclear construction projects.

Mr. Cooper characterized the construction of a nuclear power plant as large production process. Tr. 2469, 2475. The criteria used in evaluating the construction of a nuclear power plant are no different from the used in evaluating any other production process. They are:

> . . . standards that our experience has shown us can be a trend, can be reached, can be practically implemented by well run large organizations. Tr. 2476

In general, the standard is one of "anticipatory management" Tr. 2475.

This approach is not only justified but also necessitated by a number of factors. First, "there is nothing magical about constructing a nuclear power plant." Tr. 2476. It is production process, "a method by which you bring together a variety of raw materials, hopefully in a sequenced way, so that you have an end product." Tr. 2469. It can be distinguished from an ongoing production process because it has a definitive beginning and a definitive end, Tr. 2469, and, perhaps, in

the degree of repetitiveness involved. Tr. 2534. However, the fact remains that one constructing a nuclear power plant, like one engaging in any production process, must study what he is doing, must define and articulate standards not only for the repetitive procedures but also for the non-repetitive ones. Tr. 2534 As stated by Mr. Cooper,

> Consequently, in our professional opinion, you can develop standards for those specific [non repetitive versus repetitive] tasks and manage to those tasks... therefore, lets have different standards, but let's manage to them. Tr. 2535.

Second, the utility industry in general has not exhibited exemplary behavior in the construction of nuclear power plants. Public utilities in general have not had adequate management organizations in place prior to undertaking large scale construction projects. C.A. Statement 2-B, Conclusion at 2. In addition, cost overruns and delays in in-service dates have been extensive in the construction of nuclear power plants. This is exhibited by the Commission's recent decision with regard to Salem I. Pa. PUC v. Philadelphia Electric Co., R.I.D. 438. Consequently, the public utility industry cannot be used separately to establish an adequate standard.

Third, a comparison of gross statistics, i.e., schedule slippages and cost escalations, is of little probative value. Mr. Cooper characterized them as "interesting information." Tr. 2482-3. Theodore Barry & Associates, the management consultants in the Philadelphia Electric case, R.I.D. 438, reached the same conclusion. C.A. Statement 5 at 16-17 R.I.D. 438. This conclusion becomes obvious when one realizes that the time and cost targets are set by the utility itself and, thus, the statistics are lacking an objective standard by which they can be judged.

Last, the Pennsylvania Public Utility Commission has concluded that comparisons of one nuclear power plant with another to determine whether there were prudent management practices is of little probative value. In R.I.D. 438:

> . . . PECO offered evidence of comparison of the Salem No. 1 per kilowatt cost to other nuclear projects in Northeastern United States, as proof that the overall installed costs per kilowatt generated by Salem No. 1 were within the range of other comparable plants. TB&A admits that such comparison shows that Salem No. 1 costs are in line with other Northeastern plants, but avers that such comparison does not provide the best evidence of the appropriate and proper cost for Salem No. 1. While such comparable evidence submitted by the Company has some probative value, it is not of sufficient weight to override the TB&A evidence, since such comparisons are not the best evidence of evaluating a utility's performance in constructing such a plant. Such comparisons do not reflect the unique costs of environment, labor and other variable aspects in building a particular nuclear plant. Re PUC v. Phila. Electric Co., R.I.D. 438, Recommended Decision at 36 (Nov. 15, 1978).*

In addition, two years earlier, in R.I.D. 170-171 the Commission refused to disallow accrual of AFDC which the Commonwealth alleged to be associated with construction delays at TMI-1. The basis for the Commonwealth's allegation was a comparison of construction times at TMI-1 and Peach Bottom. In its order, the Commission stated that, despite the fact that construction of each was commenced at the same time, differences in design, AFDC amounts and other constraints precluded comparisons of the two. Pa. PUC v. Metropolitan Edison Co., R.I.D. 170-171 at 12 (June 22, 1976).

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* As of this writing, the latest information indicates that the Commission has endorsed the findings and conclusions of the Administrative Law Judge on this matter.

Therefore, based on both case law and expert testimony, Met-Ed's attempt to judge the management of the TMI-2 construction project by comparing that project with other comtemporary nuclear power plant projects has little probative value. This evidence cannot outweigh the evidence of mismanagement which resulted from the Touche Ross review.

2. <u>Met-Ed has failed to prove that failure to accelerate construction funds in 1976 was unavoidable and therefore a prudent management decision</u>.

Touche Ross & Co. examined the financial profile of GPU during 1976 and concluded that the Company had access to additional funds in 1976 and, therefore, could have accelerated construction funds for TMI-2 by $10-20 million, an amount which would have avoided the cutback in labor and the resulting loss of construction momentum. C.A. Statement 2-B, Testimony at 9. This conclusion was drawn from the following facts: (1) The (debenture indenture) coverage ratio since mid-1974 has been above 2.0 for Met-ed, consistently. In addition, the coverage ratios for Jersey Central and Penelec only dropped below 2.0 for one month each, from 1975-1977. <u>Id</u>., Report at A-25-A-29. (2) The market to book ratio for GPU stock which bottomed out the last quarter of 1974 continued upward in steps after that point until in the last two quarters of 1976 it reached 90% and 91%. <u>Id</u>. at A-30, A-31. Similarly, the market price per share which had been as low as 10 1/2 in the last quarter of 1974 was reported at 17 1/2, 16 3/4 19 and 19 1/2 for the four quarters of 1976, consecutively. <u>Id</u>. (3) In addition, although GPU had a line of credit of $433 million in 1976, the average daily amount outstanding was approximately $49 million and the maximum amount outstanding at any month end was $82 million. Met-Ed Exh. K-1 at 25.

In rebuttal, Mr. Hafer repeatedly asserted that the Touche Ross review failed to recognize the lack of control GPU had over its financial resources, despite his attempts to explain this fact and the surrounding circumstances to Touche Ross personnel. In support of his conclusion, that GPU was in a financial bind Mr. Hafer sponsored nine exhibits, Met-Ed Exh. K-22 to K-30.

It is significant to note that every one of these exhibits gives factual support for drawing the conclusion that GPU was faced with financial constraints <u>between 1970 and 1974</u>. However, none of the exhibits provide actual financial data for any year <u>subsequent to 1974</u>. Touche Ross fully and explicitly recognized the financial constrictions on GPU from 1970 to 1974. C.A. Statement 2-B, Testimony at 8. Consequently, did not recommend any rate base deduction for the 1970-1974 delays. As stated by Mr. Madan:

> Q. Do you agree [with the Company's claim] that the financial condition of the Company necessitated a delay?
>
> A. There appears to be evidence to suggest that in the 1970 to 1974 period the Company felt that its financial condition did not allow the original construction schedule to continue. During this period the in-service date slipped 48 months (page A-1). C.A. Statement 2-B, Testimony at 8.

One can only conclude that it is not by accident that Mr. Hafer failed to provide financial data for GPU for 1976 for the subsidiaries. As previously mentioned, GPU's market-to-book ratio was good, the coverage ratio was adequate and short-term borrowing was available. In addition, the market as a whole was normal. As a matter of fact, Met-Ed witness Brennan considers 1976 to be a normal year. Met-Ed Statement 1 at 37. Furthermore, the subsidiaries' requests for rate relief did not go unheeded, contrary to Met-Ed's intimations.

Mr. Russell noted during his cross examination of Mr. Madan that in June of 1976 Met-Ed had had a rate case pending for almost two years. Tr. 2622. However, Mr. Russell failed to note that the requested relief consisted of three tariff supplements, #22, 23 and 24. Supplement #22, a $12.74 million increase, became effective by operation of law on September 24, 1974. Then, by order of the Commission on June 22, 1976, an additional $17.78 million rate increase was granted, retroactive to July 9, 1975, thereby providing a total increase in revenues of $30.5 million. Pa PUC v. Metropolitan Edison Co., R.I.D. 170-171 (June 22, 1976)

Mr. Russell also pointed out that in June of 1976 Penelec had had a rate case pending for almost two years. Tr. 2622. However he failed to note that Penelec received rate relief on June 2, 1976. Pa. PUC v. Penna. Electric Co., R.I.D. 172-173 (June 2, 1976)

Last, Mr. Russell noted that in June of 1976 Jersey Central had had a rate increase pending since September of 1975. Tr. 2622. However, Mr. Russell failed to point out that the New Jersey Board of Public Utility Commissioners granted an increase of $47.3 million in June of 1975, including an interim increase of $23.6 million. Re Jersey Central Power & Light Co., 10 PUR 4th 74 (1975). In addition, in November of 1975, the N.J. Public Advocate found that, with regard to the September 1975 filing, Counsel would not contest $23 million if the Commissioners found that an emergency situation existed. Rate Counsel's Brief in Response to Petitioner's Motion for Interim Relief at 21. (Nov. 26, 1975). Furthermore, in February, 1976, the direct testimony of the Public Advocate was filed recommending $46.5 million in rate relief and on March 22, 1976 the Public Advocate recommended $48.5 in

its Brief. Therefore, it is clear that GPU had a good idea of the amount of rate relief which would be granted by New Jersey.

Consequently, the alleged inability of GPU to control their financial situation during 1976, especially during the last two quarters of that year, is baseless. They were not precluded from short or long-term borrowing; they were not precluded from offering common stock; and they had received and could anticipate receiving future rate relief in the near-term future.

3. Met-Ed has failed to show that the decision not to accelerate construction funds in mid-1976 did not cause further slippage in the TMI-2 in-service date.

As a result of interviews and the analysis of data provided by GPU, Touche Ross concluded that the failure to accelerate construction funds in the 1976-1977 time period by $10-20 million resulted in an extension of the completion date by four to six months. C.A. Statement 2-B, Conclusion at 6, Testimony at 9. This opinion of Touche Ross is based on substantial data.

First, the site manning graph on A-46 shows an overall labor cut from approximately 1850 in April or May of 1976 to 1475 in August of 1976, out of approximately 20% TMI-2 remained at the 80% manpower level for approximately 6 months and did not reach the pre-April 1976 level again until April of 1977, one year later. Tr. 2621. This site manning pattern should be contrasted to the normal site manning bell curve found at TMI-1. See C.A. Statement 2-B at A-45. As stated by Mr. Cooper:

> If you don't have laborers you can't build. If you can't build, you can't do other things. . . . you don't pull as much cable, you don't do as much instrumentation . . . Tr. 2500.

Second, a related point, GPU used the labor force to balance the budget. Tr. 2487. "This yoyoing of the labor force" compounded the productivity problems during the last two years of the project. Tr. 2485. In the spring of 1976 there was good morale and good construction momentum. Tr. 2558. With the cutback in the labor force, construction momentum was lost. Once construction momentum was lost on TMI-2, the job never recovered. Tr. 2489, 2558. This loss in construction momentum was reflected in the work sampling studies (A-68), Tr. 2520 the annual progress reports (A-22) and was confirmed by Mr. Heward during the TMI-2 review and on the stand. Tr. 2774, 2778-9.

Third, there was a four-month delay on the Major Milestone Event Schedule for core loading at TMI-2. Tr. 2798, 2777, 2779. On the stand, Mr. Heward confirmed the Major Milestone delay as well as the Touche Ross conclusions that stemmed therefrom:

> Q. You had mentioned earlier in talking about the origin of the four to six month delay that that was attributed in part to a slippage of the core loading. Now, was there such a slippage from October of '76 to February of '77?
>
> A. Yes.
>
> Q. And if you had not lost the construction momentum, would it have affected the milestone schedule?
>
> A. Yes.
>
> Q. And specifically, would it have affected the core loading on that schedule?
>
> A. Yes. Probably.
>
> Q. And to what extent would it have affected that milestone?

A. I have not made that analysis.

Q. Then in plain English, loss of construction momentum does mean a loss--excuse me, a delay in the in-service date?

A. I think most probably, yes. Tr. 2779

Fourth, the projected cash flow requirement for TMI-2 was $11 million greater than the amount budgeted for 1976. The cash flow requirements were based on cost estimates made in February of 1975 and projected cash needs for TMI-2. C.A. Statement 2-B, at A-34; Tr. 2514. The fact that resource requirements at TMI-2 were significantly greater than the amounts budgeted is also exhibited by comparing actual spending with budgeted amounts. In 1976, the original budget for TMI-2 was $89.0 million. Actual spending was $101.9 million a difference of $12.9 million. C.A. Statement 2-B at A-33.

Fifth, if the $10-20 million had been made available it would have been fully utilized by project management. There was adequate labor in the Harrisburg area, skilled labor which had been attracted by TMI-1 and was now available for TMI-2. Tr. 2484. Therefore, the Company could have maintained the balance of the labor force and continued to smooth the labor curve. Tr. 2484-5. In addition, the project was capable of spending across the range of dollars shown on A-32. Tr. 2485. The actual spending in 1969 (undepleted) dollars dropped off after 1972 and was never regained after that year, despite the fact that TMI-2 was only in its third year of construction.

Sixth, given actual project spending before the cut (A-32) of $63.1 million in 1975, $10-20 million would have represented approximately two to four months of work.

Last, it was the professional opinion of Mr. Heward, the project manager of TMI-2 and a man with great experience in the field that (1) he needed an extra $10-20 million in mid 1976; (2) that failure to get the increase in the construction budget would have resulted, and did result, in a lay off in the labor force coupled with a resulting loss of construction momentum; and (3) that this cost the project four to six months. Tr. 2888-91, 2501, 2546-7. The opinion of Mr. Heward's was corroborated by Mr. Arnold, Vice President of Construction, to the extent to which he agreed it cost them "some time." Tr. 2498, 2584

In rebuttal, Met-Ed alleged alternatively that there was no delay in the in-service date due to the failure to accelerate construction funds in 1976, that no one could recollect Mr. Heward saying that there was a four to six-month delay, and that even if there was a delay, it was due not to the cutback in construction funds but to the unavailability of materials, supplies and engineering decisions. Tr. 2837, 2846.

Mr. Arnold stated that, although he was of the opinion that the construction fund cutback, and resulting manpower cutback, in 1976 caused a delay in the in-service date up until a few months ago, recent analysis of the situation has caused him to change his opinion. At the time of taking the stand, Mr. Arnold said he believed that the cutback did not cause any delay. Tr. 2744. As stated by Mr. Arnold:

> We have done some analysis of the construction management systems that were utilized during that period and which Mr. Dieckamp will be addressing in his testimony that has lead to the opinion that I have given. Tr. 2744.

The only data Mr. Dieckamp addressed in his testimony, however, was a one-page chart, Met-Ed Exh. P-1, which was only

introduced into the record after the Office of Consumer Advocate insisted on seeing a copy. In addition, although Mr. Dieckamp claims that the exhibit shows a reduction in schedule variance due to the construction budget cutback, Tr. 2846, it is quite obvious that the exhibit shows just the opposite. Since Mr. Dieckamp testified that Mr. Heward "effectuated the reductions" on June 9, 1976, and since the site manning did not reach pre-June 1976 levels until April of the following year, those two dates determine the time period in which slippage is relevant. From the aforementioned Met-Ed exhibit, the only available information for this time period is the following:

CPM Scheduling Forecasts

Report Date	TSO	Target Float	Final Normalized To TSO of 3/16/78
5/14/76	12/30/77	-71	-17
6/25/76	12/30/77	-51	3
10/22/76	3/16/78	-27	-29
12/07/76	"	-29	-29
12/17/76	"	-25	-25
2/11/77	"	-31	-31

Met-Ed Exh. P-1

Both the 5/14/76 report date and the 6/25/76 report dates reflect the full site manning at TMI-2 prior to the manpower cut, although the 6/25/76 information reflects the cutbacks which occurred prior to that report date (approximately one hundred people). However, it is not until one looks at the data for report dates 10/22/76 through 2/11/77 that one sees the full impact of the manpower cutback. In the Spring of 1976 when construction momentum was gaining at the project, target float averaged sixty-six working days. By February of 1977, target float normalized to TSO of 12/30/77, was eighty-five working days, or approximately one month more. In addition, if one were to

compare target float at 6/25/76, immediately after the cutback with target float at 2/11/77, it becomes clear that the project lost seven weeks. Therefore, the CPM scheduling forecast is without merit as substantiation of the allegation that there was no delay due to the failure to accelerate construction funds in 1976. Even Met-Ed's own exhibits show a substantial delay in construction due to the unnecessary labor cutbacks at TMI-2.

Met-Ed's second line of rebuttal was that neither Mr. Heward nor any of the other GPU personnel present recall Mr. Heward stating that the failure to accelerate construction funds by $10-20 million cost the project four to six months. Tr. 2741 (Arnold); Tr. 2753 (Bohn); Tr. Met-Ed put four witnesses on the stand to utter this rebuttal. It is significant to note, however, that none of the witnesses testifed that the statement was not made and, in fact, Mr. Arnold stated that although he did not recall any discussion on the four to six month delay, he was "quite confident that discussion did take place." Tr. 2741. It is also significant to note that none of the witnesses denied that at the February 14, 1978 meeting held to discuss the work sampling reports (a measurement of productivity or construction momentum) on TMI-2, Mr. Heward attributed loss of productivity or construction momentum to the failure to provide funds requested by project management. Last, it is significant to note that at the May 1, 1978 meeting, the meeting held to discuss the draft conclusions to the Review, all participants can remember questioning the $20 million figure and the four to six month estimate in the draft conclusion but none of the participants can recall the specific discussion on the subject.

In addition, Met-Ed claims not only that no one at GPU agreed with the quantification of the 1976 delay but also that Mr. Hafer specifically disagreed with it. Tr. 2726. As evidence of this disagreement, the Company presented the May 18, 1978 letter from Mr. Hafer to Mr. Madan, C.A. Exh. 11. This letter was written after the May 1, 1978 meeting, at Mr. Madan's request that Mr. Hafer reduce to writing his comments and suggestions on the draft conclusions section which had been discussed at the May 1 meeting. The draft conclusion section contained virtually the same list of items, items which the Company could have controlled and which adversely affected cost and completion, that appeared in the final conclusion and that was restated in Section II. A. 5. supra. Within the list was the statement that budget cutbacks in relatively modest amount ($10 million) in 1976, for example, resulted in an extension of completion date by several (four-six) months. C.A. Exh. 12 at 6. In the May 18, 1978 letter, however, Mr. Hafer did not say that the conclusion drawn by Touche Ross with regard to the four to six-month delay was factually incorrect. In fact, it did not directly address the quantification of the delay at all. Instead, Mr. Hafer "suggested" substitute language which would have excused all delays on the basis of GPU's alleged inability to control its financial situation. Since this line of defense has already been refuted, it is unnecessary to address it further here!

Met-Ed's last line of defense was that even if there was a delay in 1976, the delay was due not to the failure to accelerate the construction budget and the resulting manpower cutback and loss of productivity, but to the unavailability of critical materials, supplies and engineering decisions. Tr. 2836-7, 2846. Mr. Dieckamp then claimed

that in 1977 when the additional manpower was applied, this application "had a more than offsetting effect."

In order to evaluate the credibility of these allegations, allegations which had never been stated during the review process, one must examine the data submitted in support of these statements. Mr. Dieckamp did not introduce into the record one piece of evidence to support these allegations. In addition, the summary information he was to provide to the parties for inspection, was not provided in sufficient time to allow cross-examination on the basis of the documents. Furthermore, the substance of the data itself, whatever substance it had, could not possibly and did not support the allegations that Mr. Dieckamp made. Met-Ed's decision not to introduce this or any other information into evidence is the best evidence that there is no factual basis, at all, for Mr. Dieckamp's allegations.

In conclusion, the rebuttal testimony which Met-Ed has offered does not even make a dent in the findings of the management review. As noted above, the Company cannot and, therefore, does not even try to attack the overall findings of substandard management practices. Instead, their rebuttal testimony is confined to fringe areas, all of which have taken more hearing, and briefing time, than they merit. However, that time will have been well spent if it demonstrates, as it should, that even in those limited areas in which the Company presented rebuttal testimony, that testimony only confirms the finding of Touche Ross that the failure to accelerate construction funds in 1976 was clearly under the control of management, that management knew or should have known that the failure to accelerate construction funds in 1976 caused a loss in construction momentum which in turn caused an

irreversible change in the construction schedule, and that that loss of construction momentum caused a four to six-month delay in the in-service date for TMI-2.

C. Once Evidence Is Produced From Which The Commission May Conclude That There Was Improvidence Or Other Bad Management On The Part Of The Public Utility, The Public Utility Has The Burden Of Proving Not Only That The Rates Are Just And Reasonable But Also That The Expenses In Question Were Prudently Incurred. Met-Ed Has Failed To Meet This Burden.

Public utilities, on the whole, exercise "an extraordinary privilege" and "occupy a protected position." City of Pittsburgh v. Pa. P.U.C., 172 Pa. Super Ct. 230, 236 (1953). In return for this privilege, public utilities are vested with a public trust. They "occup[y] a quasi public or quasi trustee position." City of Pittsburgh v. Pa. P.U.C., 165 Pa. Super Ct. 519, 528 (1949). Thus, the property of a public utility, although private property is property "devoted to the public service and impressed with a public interest." United Railways and Electric Co. v. West, 280 U.S. 234, and the "rates to be paid by the public for the service rendered. . . must bear a relationship to the obligations which flow from such a public status." City of Pittsburgh v. Pa. P.U.C., 165 Pa. Super Ct. 519, 528 (1949).

Being imbued with the public interest, public utilities are presumed to properly exercise their management responsibilities. PP&L v. Pa. PSC, 128 Pa. Super Ct. 195, 216 See also Re Consumers Power 14 PUR 4th 1, 17-18 (Mich. 1976). However, as recognized by the presiding officer in the case at bar, this presumption is rebuttable. Opinion and interlocutory Order, R-78060626, December 7, 1978. The question before the Commission in deciding whether the presumption is

rebutted is "whether there is evidence from which it may be concluded that good management" would have acted otherwise. PP&L v. Pa. PSC, 128 Pa. Super. Ct. 195, 216-17 (1937). In other words, the burden on one challenging a management decision is the burden of showing or coming forward with the evidence from which it "may be concluded" that there was "improvidence or other bad management" or "wasteful[ness]" on the part of the public utility. Id.; Re Consumer Power Co. 14 PUR 4th 1, 18 (Mich. 1976).

Once the evidence is produced, the burden is then on the public utility to prove, not only that the rates are just and reasonable, in accordance with Section 312 of the Public Utility Law, 66 Pa.C.S.A. §315, but also that the expenses were prudently incurred. See Re Consumer Power Co., 14 PUR 4th 1, 19 (Mich. 1976). As stated by the presiding officer in the present case in reference to his Opinion and Interlocutory Order of December 8, 1978, which recognized the aforementioned presumption:

> There was no intention in the order to shift the burden which the utility has. As a matter of law under the public utility law, the point of the order was that the presumption inures to their benefit and, thereby, assists them in their burden of proof.

However, once that presumption is rebutted, the utility must bear the full burden of proving the reasonableness of the questioned management decisions, i.e., the prudence of its expenditures, as part of its burden of proving the just and reasonableness of the proposed rates.

The terms, "improvidence," "bad management," "imprudence" and "abuse of management discretion," on one hand, and "prudence," "good management" and "proper exercise of management responsibilities," on the other, are not self-explanatory.

As used by management consultants, the terms reflect "an attempt to impugn the integrity of management" or to imply a "motive, criminal or otherwise, [which] just ought not to exist." See Tr. 2697. This was stated directly by Mr. Madan and is clear from the language used by him when he stated that he found no bad management, improvidence, abuse of management discretion or dishonesty. See Tr. 2641-43.

> I have nothing to dispute that. . . management thought [it] was acting in the best interest of the management of the company, the ratepayers and the stockholders. That's not the issue here. Tr. 2642 (emphasis added)
>
> I do not imply any question into the integrity of management. Tr. 2641-2.
>
> [T]he issue becomes was that action in the best interest of everyone concerned, both the stockholders and ratepayers. Tr. 2642. (emphasis added)

As used by the courts, however, the terms are not imbued with motive or intent. Instead, the terms reflect a judgement on the part of the courts and commissions based upon what "management . . . knew or ought to have known" at the time of making certain decisions. City of Pittsburgh v. Pa. P.U.C., 370 Pa. 305, 319 (1952). Neither niaveté nor uninformed decision making is a defense. In short, the holding of improvidence or imprudence reflects a judgment on the part of the Commission "that the mistakes of management were such that they should not be borne by the consumers." PP&L v. PSC, 128 Pa. Super Ct. 195, 208 (1937).

Examples of "improvident" or "imprudent" expenditures are helpful in understanding the meaning of the term. In PP&L v. Pa. PSC, 128 Pa. Super. Ct. 195, 208 (1937) the Pennsylvania Public Service

Commission found, and the court upheld the finding, that the decision to install a 14" gas line rather than the less costly but sufficient 10" line was "not provident or prudent." More recently, in Pa. PUC v. Metropolitan Edison Co., R.I.D. 170-171 at 13 (July 6, 1976), the Commission found that imprudent procedures were followed in connection with the concrete pour at TMI . . . [and] . . . that respondent's ratepayers should not be made to pay this burden." Most recently, in Pa. PUC v. Phila. Electric Co., R.I.D. 438 (Recommended Decision, Nov. 15, 1978), the presiding officer found that "PECO exercised unacceptable imprudent management practices in regard to its engagement in, and its total abdication of responsibility for the management of the construction of the Salem No. 1 project."

In addition to the aforementioned findings of imprudence in Pennsylvania, examination of the case law in other jurisdiction yields numerous additional examples. However, since the most recent cases were reviewed in OCA's Memorandum of Law: Review of TMI-2 Construction Project--The Relevancy of the Review and the Objective Criteria by which the TMI-2 Construction Costs Should Be Judged, Nov. 16, 1975, no further elaboration is required here.

The Office of Consumer Advocate has met its burden of proof. It has produced evidence that the management of the TMI-2 construction project was substandard when compared to the management of projects of similar magnitude, both in terms of numbers of people, dollars and operations. It has demonstrated that there was no excuse for the lack of organization and control management had over the project, and it has shown that this lack of control cost the project, and future ratepayers, millions of dollars.

On the other hand, the Company has not shown that there was any reason for failing to have an adequate organization, for failing to articulate policies and lines of responsibility, for failing to set firm standards and control to those standards. Instead, GPU tries to excuse its behavior by demonstrating that it did not want to build TMI-2 in the first place. This can hardly excuse nine years of mismanagement resulting in five years of slippage and $500 million in cost escalations.

It is clear from the Report that given the relatively normal construction project at TMI-1 and given the fact that GPU had had a great deal of experience with power plant construction in general, GPU knew or should have known the consequences of its action. It is equally clear that given the number of items which could have been controlled, but were not, and which could have saved dollars and time, but did not, that good management would have acted otherwise.

Therefore, it is respectfully submitted, GPU did not exercise prudent management practices in the construction of TMI-2. This imprudence resulted in substantial escalations in the cost of TMI-2. Although the cost of imprudence is difficult to quantify, this Commission has accepted the challenge many times in the past. The Office of Consumer Advocate recommends that, as a minimum, $9 million be deducted from rate base to reflect one imprudent management decision--the failure of the Company to escalate funds for TMI-2 in 1976, knowing that this failure would result in severe labor cutbacks and that this would cause an irreversible delay in the construction of TMI-2. It is appropriate for the Commission to accept a quantification of this decision because this decision was typical of the kind of

counterproductive "yoyoing" of the labor force which characterized construction management of TMI-2, in general.

D. The Costs Associated With The Failure Of The Main Steam Safety Valves Could Have Been Avoided Through The Exercise Of Prudent Management Practices.

The failure of the main steam safety valves and the resulting replacement of the valves and delay associated therewith were not examined by Touche Ross as part of the management review. The time frame of the management review predated the valve failure. Therefore, data available for regulatory review on the valve failure is far more limited.

However, as the result of direct and cross-examination of Mr. Arnold and Mr. Williams, certain facts have come to light. From these facts, two conclusions have been drawn by the Office of Consumer Advocate.

First, the delay due to the failure of the main steam safety valves could have been avoided by the Company through the exercise of more prudent management practices. Therefore, the ratepayers should not be made to pay a rate of return on these costs associated with the valve failure.

Second, the costs associated with the failure of the main steam safety valves represent an abnormal cost incurred by the Company. Therefore, this cost should not be included in rate base but should be shared by ratepayers and stockholders. This will be treated in Section II. E.

On August 20, 1970, Jersey Central issued a purchase order to Lonergan for the "design, procurement, delivery and non-destructive

testing" of thirteen steam safety valves for OC-2/TMI-2. Tr. 2799. At that time, the scheduled in-service date for TMI-2 was May of 1974. C.A. Statement 2-B at A-1. The valves purchased from Lonergan had not been tested at the time the purchase order was issued and there was no evidence that the Company anticipated that the valves would have been tested prior to their installation at TMI-2.

In the same time period and on the same site. smaller valves were procured and installed at TMI-1. Although the smaller valves had not been tested at TMI-1 at the time the larger valves were procured for TMI-2, the Company was well aware that the smaller valves <u>would be tested</u> prior to the installation of main steam safety valve at TMI-2. TMI-1 was initially scheduled to be in service in December of 1971. Its final in-service date was September of 1974. C.A. Statement 2-B at A-1. Therefore, both the anticipated and actual in-service date for TMI-1 predated the in-service date for TMI-2. As stated by Mr. Williams, Senior Consultant of the Generation Division of GPUSC, in response to the following questions:

> Q. . . . At the time you were bidding for the valves at TMI-2, did you anticipate that the valves at TMI-1 . . . would be in operation prior to the installation of the valves at TMI-2?
>
> A. We certainly knew that, yes.
>
> Q. So that in effect, you anticipated that the set of valves that were used at TMI-1 which may not have been tested at the time you were actually issuing bids [or invitations to bid at TMI-2] would have been tested [at] the time that you would be installing the valves at TMI-2.
>
> A. Yes. There were other valves of that size that were tested before the ones in Three Mile 2. Tr. 2808.

It is clear that the use of untested valves involves a greater risk than the use of tested valves. This was confirmed by Mr. Williams. Tr. 2812. It is also clear that the process of extrapolation from a smaller valve to a larger valve involves some degree of risk. This is evidenced by the experience of GPU at TMI-2. The question then becomes whether it was necessary for Met-Ed and GPU to assume that additional risk.

Met-Ed provided no testimony to the effect that they could not obtain the same valves for TMI-2 that were installed at TMI-1. In addition, it provided no testimony that the valves at TMI-1 would be inadequate for TMI-2. As a matter of fact, Mr. Williams testified that there was no need to extrapolate, to install a larger valve at TMI-2 than was installed in TMI-1, at all.

> Q. But in fact, you could have avoided extrapolation by using the valves at TMI-1 because the capacities were approximately equivalent?
>
> A. Yes. Tr. 2809.

Therefore, the Company took an unnecessary risk. The risk associated with installing an untested as opposed to a tested valve and the risk associated with extrapolating from a smaller valve were both foreseeable at the time that the Company (JCP&L) entered into the purchase order for the valves at TMI-2. It was equally foreseeable, at the time of the purchase order, that these risks could have been avoided. Therefore, the ratepayers should not bear the cost associated with failure due to this known and unnecessary risk.

One other matter must be considered in evaluating the decision to install larger main steam safety valves: Whether the Company had an option under the 1970 main steam safety valve contract to avoid that

contract after the time for initial installation had lapsed, and whether the failure of the Company to avoid the contract at that point in time was prudent.

The purchase order issued on August 20, 1970, has not been made part of this record. Therefore, the contemplated date for the installation of the main steam safety valves is undeterminable. However, given the fact that at the time of the purchase order the forecasted in-service date for TMI-2 was May of 1974 and that the actual in-service date for TMI-2 is December of 1978, there is no doubt that the time frame for valve installation anticipated in 1970 was far different from the actual time frame for valve installation. By September of 1974 the smaller steam safety valves had survived the battery of precommercial tests at TMI-2. Since the larger valves should have been installed at TMI-2 by this time, under the 1970 schedule, and were not, and, furthermore, would not be until some time later, the Company should have re-evaluated its options at this point in time and considered the installation of the smaller, tested main steam safety valve design. Met-Ed has not come forward with any evidence that shows that they evaluated their options at this point in time and found that the installation of the larger, untested valve was the more economically sound, reasonable and prudent alternative.

In summary, risks were taken with regard to the procurement and installation of the main steam safety valves at TMI-2 which could have been avoided through the exercise of prudent management. In 1969, the Company should have known that the smaller valves would be tested at TMI-1 and that procurement of the same valves for TMI-2 would have lowered the Company's risk. In 1974, when the smaller valves were

functioning at TMI-1 and the larger valves still uninstalled at TMI-2, the Company should have re-evaluated its alternatives.

Realizing that neither ratepayers nor investors are guarantors of every part of every plant, Mr. Madan recommends that the cost of this risk be shared between them. Consequently, a $12.158 million deduction from rate base is recommended for the main steam safety valves, although no deduction is recommended from the Company's expenses associated therewith.

E. The Costs Associated With The Failure Of The Main Steam Safety Valves Are Abnormal Costs Which Should Be Shared By Both ShareHolders And Ratepayers, And Not Borne By Ratepayers Alone.

The failure of the main steam safety valves at TMI-2 was an abnormal occurrence. Regardless of whether or not it could have been controlled by GPU or Met-Ed, it was not expected or controlled. This failure caused the Company to close the plant down, study the problem and eventually install a new set of safety valves. It caused the Company to repeat a process which it had already completed and to incur costs a second time for the same procedure. Therefore, not only is the failure an abnormal occurrence, the installation and reinstallation of the valves raises the question of whether the costs associated with both installations can be included as part of the used and useful property.

Mr. Madan has analogized the failure of the main steam safety valves to the faulty ring girder pour at TMI-1 and to storm damages and major forced outages.

As explained earlier, the Commission deducted the costs associated with the faulty ring girder pour at TMI-1 from rate base, although Met-Ed was allowed to claim the expenses associated therewith

on their income statement. Due to the similarity between the ring girder pour at TMI-1 and the steam valves at TMI-2 both in terms of the double installation and the pending litigation, it is appropriate to quote at length from the Commission's decision.

> Another item of contention is a faulty ring girder concrete pour made during construction. Extensive rip-out and rework was required because of voids in the concrete which were a result of not adequately taking into consideration the high concentration of reinforcing steel when making the pour. The record indicates that the total cost at TMI for the faulty pour was between $6 million and $9 million. Commonwealth contends and respondent agrees, that litigation against contractors for recovery of this cost is likely to occur. Commonwealth is of the opinion that in the meantime, ratepayers should not be burdened with this cost and that the Commission should take the total average cost ($7,500,000) and eliminate respondent's share ($3,750,000) from rate base. Municipal Complainants contend that a minimum of $3 million, which represents one-half of respondent's witness's minimum assessment of increased expense due to the faulty ring girder pour, should be deducted from respondent's claim. Respondent avers that, "If and when any recovery is made, the rate payers would promptly be given the benefit of it." It is apparent from the record that "imprudent procedures" were followed in connection with the concrete pour at TMI. Respondent was relectant to provide detailed evidence of the culpability for the faulty pour pending completion of its own investigation and possible litigation. Regardless of subsequent litigation which may determine responsibility for the faulty concrete pour at TMI, we are of the opinion that respondent's ratepayers should not be made to bear this burden. Consequently, we disallow $4,500,000 from rate base which represents respondent's share of an estimate of the faulty concrete pour for the purpose of these proceedings. Pa. PUC v. Metropolitan Edison Co. at 13 (June 22, 1976).

It becomes clear from reading this decision that the line between imprudent management practices and abnormal construction costs is not impervious to penetration from one side or the other.

As explained by Mr. Madan, many electric utilities and Commissions have recognized storm damages and major forced outages as abnormal occurrences. As such, the costs are amortized over a period of years but the unamortized portion is not included in rate base. As noted in Section I. I. supra, it was even the practice of Met-Ed, prior to the case at bar, not to claim the unamortized portion of storm damages in rate base. One has to wonder whether the inclusion of a claim for the unamortized balance of storm damages in this case was calculated to support inclusion of all costs associated with the failure of the main steam safety valve at TMI-2.

Further justification for the exclusion of the costs associated with the main steam safety valve failure is revealed by a review of standard regulatory theory. As Dr. Marcus noted, rates are set for the future on the basis of "normalized statistic." If there is a failure which is a normal kind of occurrence then the rates can reflect the failure. However, if the failure is an abnormal occurrence, there should not be a provision for ratepayers to absorb such losses. To include abnormal costs would distort the normalized statistic, thereby introducing into the rates a degree or statistical probability of failure where such failure should not be recognized as statistically probable. In effect, an abnormal occurrence would be recognized as normal. Tr. 3116-7.

This rationale has often been used to exclude expenses as well as rate base items in the past. In the recent Philadelphia Electric case, for example, the Company claimed abnormally high test year maintenance expenses which it volunteered to amortize over a number of years. However, the presiding Administrative Law Judge found, as follows:

> We agree with the position of the Consumer Advocate and Park Towne. It is a fundamenta principle of ratemaking that it is a prospective undertaking. As the Courts and the Commission have so repeatedly made clear, it is not the past, but the future, that is regulated. Board of Public Utility Commissioners v. New York Telephone Co., 271 U.S. 23, 27 (1925); Los Angeles Gas and Electric Corp. v. Rrd Commissioners of California, 289 U.S. 289 (1932).
>
> Thus, it is a general principle that a utility is not entitled to recover in the future an expense of the past any more that it is charged in the future with extraordinary revenue received in the past. To do so would require investigation of all the returns of past years. To permit recovery of such extraordinary expenses would result in a guaranteed return to the utility, which in turn would remove any incentive for managerial efficiency and defeat the very purpose of regulation - efficiency for the benefit of captive customers.

The failure of the main steam safety valves at TMI-2 delayed the project from a projected June 30, 1978 in-service date to a projected November 23, 1978 in-service date, a period of six months. Mr. Arnold, Vice President of Generation for GPUSC, himself testified that identification and testing for correction of the larger valves occupied approximately two months of time, from April 23, 1978, when the valves failed, until June 27, 1978, when the Company informed Lonergan that they were replacing the valves (Tr. 1238, 2804) and that replacement of the valves and the associated modification of the main steam system had a control time of about four months. Tr. 1239.

Met-Ed claims that the total cost associated with the main steam safety valve failures is $1.7 million. However, it has failed to reconcile this figure with the $22.5 million difference between the cost associated with a June 30, 1978 in-service date (Met-Ed Exh. E-1) and the cost associated with an October 31, 1978 in-service date. (Met-Ed

Exh. E-1-1). For example, it is clear from Mr. Arnold's testimony that the bare bones estimate of $1.7 million does not include AFDC expenses associated with the six months of delay caused by the failure of the valves, although those costs increased by over $14.0 million; it does not include any expenses associated with additional start-up and testing, although the cost escalation from the estimated June 30-October 31 delay alone was $6.7 million; it does not include any cost escalations due to increased use of temporary facilities and services, although those costs went up $1.5 million from the estimated June 30, 1978 to the estimated October 31, 1978 in-service date. Compare Met-Ed Exh. E-1 with Met-Ed Exh. E-1-1. As a matter of fact, under cross-examination, Mr. Arnold was not able to relate the costs he attributed directly to the main steam valve failures, $1.7 million, which costs he said were used in developing Exhibit E-1-1, to the total cost breakdown for TMI-2 on E-1-1. See Tr. 1245-6. Therefore, he was unable to state, line by line, which costs associated with the then (July 1978) anticipated four-month delay at TMI-2 were both indirectly and directly attributable to the main steam safety valve failure.

The Office of Consumer Advocate has estimated the cost due to the main steam safety valve to be $12.158 million, although we readily admit that this amount may not be the full and actual amount attributable to the main steam safety valve failure. The numbers used to calculate that amount is the difference between the March 1978 estimate ($343.651 million), Met-Ed Exh. B-2, C-2, p. 1, and the July 1978 estimate ($355.809 million) Met-Ed Exh. E-2-1, the second of which reflects, in part, the main steam valve failures. Since TMI-2 just recently entered service, the delay due to the main steam safety valve

failure may be more extensive than originally estimated. However, the Office of Consumer Advocate has used its best efforts to estimate the cost associated with the delay on the basis of the limited data provided by the Company. In order to accurately reflect the cost of the valve failures, Mr. Madan recommends "that the Commission require the Company to identify and specify the costs associated with this delay when the plant is finally placed in service." C.A. Statement 2-A at 38. The Consumer Advocate recommends that this procedure be followed.

III. FAIR VALUE

A. The Fair Value Of Met-Ed's Rate Base Is Its Original Cost.

The Company presented its claim on an original cost measure of value. Met-Ed Exh. B-2, C-2 at 1. The Consumer Advocate has based its recommendations on original cost. In short, the record is essentially an original cost record with easily calculable returns and revenue requirements based on original cost.

It is the position of the Office of Consumer Advocate that an original cost measure of value is "fair value", and that original cost should be used to arrive at the appropriate revenue requirement. This position is supported by Mr. Madan in his direct testimony:

> ... it is my position that original cost is "fair value" and thus, original cost is the proper basis for regulation." C.A. Statement 2A at 13.

Furthermore, this has been the position of the Consumer Advocate in all of the electric utility cases in this Office has been involved. The specific legal problem has been briefed very thoroughly, with historical perspective at R-77110521 (Pa. PUC v. Penn Power) and will not be repeated here. However, for benefit of other counsel in this proceeding, and in order to better frame the issue, we have set-forth in a summary fashion, the legal analysis in support of using original cost as "fair value".

Again, recall that the use of original cost rate base as "fair value", assuming that the rate of return is correctly treated, will not alter the ultimate determination of fair and reasonable rates. Commissioner O'Bannon has explained this in a recent separate opinion in Pa. PUC v. Pa. Gas & Water-Gas Division, R.I.D. 296 at 2 (June 1, 1978):

> I must point out that the same level of revenues as been found to be reasonable here could be found by using the actual value of original cost depreciated as the proper fair value finding and applying a somewhat higher rate of return. Such an approach, if upheld by the courts, would require no trending and the necessary expensive and time-consuming engineering studies to support the trending assumptions. Were original cost depreciated to be accepted as the fair value the sole issue for Commission discretion would rest squarely on the cost of original cost common equity and whether the Commission's findings were supported in the record and were reasonable. In my view, it is the return on common equity ultimately with which this Commission, the courts, the utility, the ratepayers and the intervenors are concerned.

In a sense Commissioner O'Bannon was reaffirming the determinations of the United States Supreme Court 35 years earlier. In 1944, the Court ruled that original cost was a permissable means of establishing "fair value" in and of itself without consideration of reproduction cost, Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591 (1944).

In that case, an order of the Federal Power Commission was at issue in which the Commission established rates for the sale of natural gas. The Natural Gas Act at that time contained the same premise as the Pennsylvania Public Utility Law, that rates set must be "just and reasonable". The Commission order established rate base as the "actual legitimate cost of the subject company's interstate property, less appropriate deductions and additions." No weight was given to reproduction cost. The Circuit Court of Appeals set aside the order, in part, based upon the fact "that rate base should reflect the 'present fair value' of the property, that the Commission in determining the

'value' should have considered reproduction cost and trended original cost..." 320 U.S. at 599-600.

The Supreme Court could not accept this view and upheld the Federal Power Commission's order, noting that:

> Nor is it important to the case to determine the various permissible ways in which any rate base on which the return is computed might be arrived at. For we are of the view that the end result in this case cannot be condemned under the Act as unjust and unreasonable from the investors or company viewpoint. Id. at 603.

The importance of Hope is the recognition of a ratemaking principle which Consumer Advocate suggests more closely meets the purpose of rate making. As the Court stated:

> '[F]air value' is the end product of the process of ratemaking not the starting point as the Circuit Court of Appeals held. The heart of the matter is that rates cannot be made to depend upon 'fair value' when the value of the going enterprise depends upon earnings under whatever rates may be anticipated. Id. at 601

There are vivid signs that the emininently reasonable approach articulated in Hope is being recognized by the Pennsylvania Supreme Court and by the Pennsylvania Public Utility Commission.

In Keystone Water Company, White Deer Dis. v. Pennsylvania Public Utility Commission, Pa. No. 46 May Term 1976, a central issue was the efficacy of "fair value" as applied in Pennsylvania. While the court was divided three to three, thereby robbing the case of precedential value, Justice Roberts, writing in support of reversal of the Commonwealth Court decision, took the opportunity to conduct a frontal assault on the fair value concept. His opinion is very likely to be a harbinger of the Supreme Court's position on the matter and deserves careful study.

Justice Roberts characterized the doctrine as "the outmoded unworkable 'fair value' rule of rulemaking discarded nearly 40 years ago by the federal courts and likewise rejected by the vast majority of state courts..." Keystone Water Co., White Deer Dis. v. Pa. PUC Robert, J., in support of reversal at 1. As of 1976, Pennsylvania was one of only ten states that adheres to some form of the 'fair value' concept. 1976 NARUC Annual Report on Utility & Carrier Regulation, pg. 405-06, Table 11; see Pontz & Sheller, The Consumer Interest -- Is It Being Protected By The Public Utility Commission? 45 Temp. L.Q. #315, 321 (1972). Currently there are only 3 states other than Pennsylvania which rely on a fair value rate base and rate of return: Arizona, Indiana and Texas.

Justice Roberts' opinion emphasized that the standard prescribed by Section 301 of the Public Utility Law, 66 Pa. C.S.A. §1301 is that all rates must be "just and reasonable." He noted that this standard is closely akin to the rate setting mechanism present in Hope and quoted with approval the Supreme Court's pronouncement that it is the result reached and not the method employed, which is controlling.

Justice Roberts correctly stated that, even though there was a reference to "fair value" in the Natural Gas Act which the Hope case was interpreting, the Supreme Court still held that the relevant inquiry under that Act was whether the rate was a "just and reasonable" one. Id. at 13. The Hope opinion, as has been stated, established actual legitimate cost as satisfying both the statutory scheme and the Constitution.

Justice Roberts' opinion pointed out one other point germane to "fair value" as applied at this time. In comparing "fair value" and

the principle of original cost as only one element in arriving at "just and reasonable" rates, he stated:

> In choosing between two standards, courts must prefer the modern, prevailing standard in the federal and state courts which avoids perpetual adjustments of rates according to market fluctuations irrelevant to a utility's actual investment, allows the regulatory body to set reasonable rates, and properly circumscribes judicial review. Mr. Justice Pomeroy's standard not only forces the PUC to endorse inflated unjustified rates, but also returns our courts to the days when the economic thinking of judges governed matters better left to legislatures and regulatory bodies Keystone at 19, 20, supra.

Administrative Law Judge Mindlin sensed the convergence of forces discussed above and, in his Recommended Decision issued May 30, 1978 in Pennsylvania Public Utility Commission v. Mid-Penn Telephone Corporation, R-77090462, directly ruled that original cost, and not "fair value", is the proper basis for ratemaking purposes. He states on page 34 of that recommended decision:

> We suggest that the "fair value" rule of rate making, involving the composition of original cost and trended original cost, is unworkable administratively, because the composition cannot be measured and inherently lacks authenticity.
>
> . . . . .
>
> We recommend that original cost, being a simple, direct, and ascertainable measure of actual, legitimate capital investment, constitutes the only authentic and significant measure of fair value under our statutory scheme of utility rate regulation.

See also, Recommended Decision, Pa. PUC v. Commonwealth Telephone Co., at 18-23 (June 30, 1978).

As noted previously, the most recent recommendation of the use of original cost as fair value has come from Commissioner O'Bannon in her separate opinion in R.I.D. 296. See supra. It would appear that at every level of the ratemaking process the abandonment of the complicated unreliable process of determining a "fair value" is being adopted. The Consumer Advocate urges the Administrative Law Judge to continue this trend and to find that the Respondent's "fair value" rate base is the original cost rate base as adjusted by Mr. Madan.

B. If The Commission Decides Not To Accept Original Cost As Fair Value, Then The Proper Measure Of Fair Value Is The Five Year Average Trended Rate Base Weighted To Correspond To The Percent Of Equity In The Capital Structure.

The Company has developed its fair value rate base on the recommendation of Mr. Garland that a spot index should be the sole basis for fair value. Met-Ed St. I at 38. The Commission, however, has always indicated that its policy has been "...to consider average price levels rather than spot price levels." Pa. PUC v. Phila. Electric Co., R.I.D. 129 at 41. Therefore, the Company's recommendation is in clear violation of commission policy.

In addition, the spot price developed by Met-Ed can reasonably be identified as the reproduction cost because the spot price was taken so close in time to present values. As stated in Pa. PUC v. Penna. Gas & Water Co. 19 Pa. Commw. Ct., 214, 341 A2d 239 (1975), neither replacement cost nor a number very close to it is an acceptable measure of value. Therefore, the Company's recommendation is in clear violation of judicial interpretation, as well.

For both of these reasons the Commission must reject the fair value findings of Met-Ed and its witness, Mr. Garland. In its place,

the Office of Consumer Advocate proposes a five year average trended rate base weighted to correspond to the percent of equity in the capital structure. This recommendation is consistent with the Office's recommendations in Pa. P.U.C. v. Penna. Electric Co., R.I.D. 392 (June 28, 1978) and Pa. P.U.C. v. Metropolitan Edison Co., R.I.D. 434, (Sept. 18, 1978) as well as in several other cases.

First, the Office of Consumer Advocate recommends use of year average rate base. This was accepted by the Commission in the most recently decided Met-Ed and Penelec cases. As stated in the prior Met-Ed case:

> Reliance on a single year's indexes could produce large distortions in valuation because of unusual occurences or events. Also, it is our concern that the use of a single year's prices would contribute to the inflationary spiral since this would include the current inflation in the fair value finding used in our setting of base rates. Therefore, we believe a five-year average is more appropriate here than a single year's spot prices in the determination of the fair value of plant used and useful. A five-year average tends to smooth out major changes in equipment and plant. The burden of cost and the benefit of technological improvement can be more realistically appraised and incorporated in electric rates. On the basis of these views we believe use of a five-year avergae is both proper and prudent. Pa. PUC v. Metropolitan Edison Co., R.I.D. 434 at 14.

In addition, this methodology comports with the decisions in two recent cases, as noted by the Commission in the most recently decided Penelec case:

> In both Pa. P.U.C. v. Pennsylvania Gas and Water Co., 19 Pa. Commonwealth Ct. 214 (1975) and the most recent Pennsylvania Gas And Water Co. v. Pa. P.U.C., _________ Pa. Commonwealth

> Ct. ___________, (No. 1523 C.P. 1976, Order issued December 21, 1977), the Courts have held that there is no one formula or one set of statistics to be used in determining fair value. Rather, a weighting of original cost and trended original cost should be used. Pa. PUC v. Penna. Electric Co., R.I.D. 392 at 13 (June 28, 1978)

Therefore, use of a five year average rate base is the appropriate starting point for determining fair value.

Second, the Office of Consumer Advocate recommends that the only portion of the rate base which should be trended is that portion associated with the percentage of common equity in the Company's capital structure. The reason behind this position is explained by Mr. Madan in his direct testimony:

> Q. What is the effect, if any, on holders of debt when the rate base is expressed in terms that only give recognition to inflation to the extent that plant is financed by common equity?
>
> A. There is no direct effect on debt holders because they are compensated in the form of interest. The fixed contractual returns to such investors are properly measured in terms of the original cost of such investment. Holders of preferred stock are in the same position. Investors in fixed dollar obligations have contracts applicable to these investments. Investors holding these types of investments have accepted a contractual relationship in the form of a specified dollar return in exchange for the additional security that they have obtained through such means as preference in interest, senior position as to guarantees of payment at maturity, sinking fund requirements, preference in liquidation, etc.
>
> Q. What would be the effect if the portion of rate base financed by debt and preferred equity investors were also restated to current cost levels?

> A. The effect would be to provide common stockholders with more than a fair return. Consequently, I feel that the Commission should use a weighting with the trended rate base corresponding to the percent of equity in the capital structure. C.A. St. 2A at 14-15

As noted earlier, the Office of Consumer Advocate also recommended this methodology in the most recently decided Penelec and Met-Ed rate cases. The Commission, in the Penelec case, made the following observations:

> We find that, on the record before us, the best estimate of fair value can be derived from the Consumer Advocate's methodology. Specificallv, the Consumer Advocate recommends not only that we rely on a five year average trended original cost, but that the only portion of the rate base that should be trended is that portion associated with the common equity percentages in the company's capital structure. Pa. PUC v. Penna. Electric Co., R.I.D. 392 at 13-14. (June 28, 1978).

For these reasons, if the Commission should determine a fair value rate base, it should use a five year trended average rate base, weighted to trend only that portion associated with the percentage of equity in the Company's capital structure, with the balance taken at original cost. Then, the allowed rate of return, calculated on the basis of original cost, must be proportionately reduced so that an excessive return is not received. Such a determination will provide a proper return to investors without penalizing rate payers.

IV. RATE OF RETURN

A. The Appropriate Capital Structure Is 35% Common Equity, 13% Preferred Stock And 52% Long-Term Debt.

It is the position of the Office of Consumer Advocate that the capital structure which should be employed in this case is the following:

Type of Capital	Ratio
Common Equity	35%
Preferred	13%
Long Term Debt	52%

C.A. Statement 1 at MM-24.

This capital structure has been recommended by Dr. Marcus, the Consumer Advocate's rate of return witness, because it is consistent with the present, actual capital structure and with that projected for the near-term future. C.A. Statement 1 at 43, MM-23. The similarity between Dr. Marcus's recommended capital structure and the present and near-future capital structures is exhibited by comparing the above with the anticipated ratios for 12/31/78, 3/31/79 and 12/31/79. Met-Ed Exh. L-1, Schedule 10 at 1.

The Company, in its filing, utilizes a capital structure similar to that recommended by the Consumer Advocate:

Type of Capital	Ratio
Common Equity	35.01%
Preferred	13.26%
Long Term Debt	51.73%

Met-Ed Exh. B-2, C-2 at 28.

Use of this capital structure would not be unacceptable to this Office. However, Met-Ed offers the testimony of Mr. Brennan, its rate of return witness who, after recommending the estimated capital structure at

March 31, 1979, distorts that structure by including job development tax credits (JDC) in the common equity portion of the capital structure. Thus, a capital structure of 35% common equity, 13.2% preferred stock and 51.8% long term debt is transformed through the inclusion of JDC into a capital structure of 36.8% common equity, 12.8% preferred and 50.4% long term debt. Met-Ed Statement at 25-6, Met-Ed Exh. L-1, Schedule 10 at 1, 3. Furthermore, a capital structure which purports to reflect the anticipated capital structure in the near term future, in fact reflects the capital structure of Met-Ed in the past. See Id. at 1.

Mr. Brennan states that his "treatment of the credit for rate making purposes is in conformance with the apparent intent of Congress as contained in several informational letters from the Internal Revenue Service." Met-Ed L-1, Schedule 10 at 3. However, Mr. Brennan's inclusion of JDC in common equity is not supported by Federal law or prior Commission practice.

The Job Development Credit (JDC) was part of the Revenue Act of 1971. The credit provides tax free funds to Penelec which can be used by this utility to invest in plant. This credit is not only available to Respondent, but is also available to all other public utilities. The language of the Act provides that the credit may not be used as a reduction from rate base. Thus, the impact of using the JDC is twofold: 1) It reduces revenue requirements as the balance is amortized back to income, and 2) It allows the utility to earn a rate of return on the unamortized balance.

In the past, this Commission has followed the treatment discussed above and allowed both Met-Ed and other utilities in the state

to earn a rate of return on the unamortized JDC balance which was used to construct plant. Met-Ed has now, through its witness Mr. Brennan, claimed that it should be allowed to earn not at the overall allowed rate of return, but at the rate of return allowed on common equity. Met-Ed Statement No. L, at 25. Mr. Brennan bases his determination upon some unspecified intent of Congress and some equally unspecified letters from the IRS. Met-Ed L-1, Schedule 10 at 3 and Tr. 1809 respectively, which he says indicate that this is the manner in which the Commission must treat this credit.

The fact that there is no legal requirement to treat JDC as Mr. Brennan proposes is made clear by the proposed regulation of the Internal Revenue Service, which indicate that the Commission is allowed to treat such credit at the overall rate of return:

> In determining whether or to what extent a credit allowed under section 38 (determined without regard to section 46(e)) reduces the rate base, reference shall be made to any accounting treatment of such credit that can affect the taxpayer's permitted profit on investment. Thus, for example, assigning a 'cost of capital' rate to the amount of such credit which is less than the permissable overall rate of return (determined without regard to the credit) would be treated as, in effect, a rate base adjustment. What is the overall rate of return depends upon the practice of the regulatory body. Thus, for example, an overall rate of return may be a rate determined on the basis of an average or weighted average of allowable rates of return on investments by common stockholders, preferred stockholders, and creditors." Proposed Regulation §1.46-5(b)

Thus, it is clear from this proposed regulation that the Commission is allowed to permit Met-Ed and other utilities in Pennsylvania to earn on the plant supplied by these tax free funds at its overall cost of capital. To do otherwise would be to reward the

stockholders with an equity return on funds which they have _not_ supplied.

Other utilities have requested the same treatment of JDC proposed by Witness Brennan in recent cases before other Commissions. In the proceeding, _In re General Telephone Company of the Southeast_, 18 PUR 4th 372 (Feb. 1, 1977), the Company there suggested that the Job Development Credit be treated as common equity contribution because that was the "intent of Congress." In so suggesting, it support this contention by citing the legislative history. The Georgia Public Utility Commission, in rejecting this approach, stated:

> The commission believes that it was the intent of Congress to prevent the Job Development Credit from being treated as capital supplied at zero cost in the capital structure and that if the Job Development was not included within the capital structure, the commission would be within the intent of Congress since the Job Development Credit would be priced at no less than the overall cost of capital determined without regard to the credit. The commission's interpretation is reinforced by proposed Treasury Regulation ¢1.46-5(b)(3). The treatment of Job Development Credit in the capital structure has not been finally decided at the federal level, and this commission finds that the treatment prescribed in this order is within 'the intent of Congress' and in conformance with proposed Treasury Regulation ¢46-5(b)(3)." _Id_. 374

In addition, this issue was recently litigated before the Pennsylvania Public Utility Commission in _Pennsylvania Public Utility Commission v. The Bell Telephone Company of Pennsylvania_ R.I.D. 367, (April 4, 1978) where the Company proposed treating JDC as Witness Brennan suggests. There it was held:

> Bell claims that a cost equal to that assigned to common equity capital should also be allowed to the JDC. In support of its position the respondent claims the legislative history of

> this credit evidences a Congressional intent that the common equity cost be used. Staff, however, relies on a proposed Internal Revenue Service regulation (Reg. §1.46-5, proposed February 17, 1972) to show that these amounts should remain part of the rate base and earn the overall rate of return. Obviously, Bell's interpretation of Congressional intent differs from the interpretation of the Federal Agency that was designated to define that intent.
>
> We believe the Staff's position more properly accounts for these sums. The Internal Revenue Service may in the near future clarify the apparent conflict which now exists... for the present, however, we believe that these funds should be included in rate base and earn the overall rate of return.

Furthermore, the presiding officer in the recent Pa PUC v. Phila. Electric Co. case, R.I.D. 438, after considerable discussion, found that present law does not require that JDC earn a rate of return equal to that of common equity and that in fact, public policy militates against such treatment:

> While Mr. Brennan, for the Company, fears that "failure to allow common equity return on assets financed with the credit would cause the loss of credit altogether," he could cite no instance where JDIC was lost because of overall return treatment. In our opinion, JDIC could only be in jeopardy if the Commission deducted the accumulated job development investment credit from rate base.
>
> Since the Commission currently has not been deducting JDIC from the rate base, investors of the Company already are earning a rate of return on JDIC equal to the rate of return achieved on all other elements of rate base, although such funds are supplied by United States taxpayers. It would be inequitable to increase the investors' return on such funds to equal the return on common equity. The investors should earn a return on the amount they have invested in the Company and not on the investment supplied by taxpayers, unless the law specifically requires a different treatment. Any such legal requirements should be strictly construed. Id., Recommended Decision at 86 (Nov. 15, 1978)

It certainly should be clear to any reasonable person that there is no statutory compulsion for this Commission to treat the Job Development Credit in any way other than it has treated this credit in the past. In this regard, it should be noted that the Commission must be aware that the policy adopted with regard to the JDC would apply to all utilities which it regulates, since the Act applies to all utilities. It should be further noted that the Internal Revenue Act which the Company pointed to has been in existence since 1971. Since that time, Met-Ed and other utilities have applied for rate increases. It is the understanding of the Office of Consumer Advocate that in no instance has the Commission permitted what Mr. Brennan has requested. To permit such a policy means that all utilities in the Commonwealth of Pennsylvania will in the future be allowed to earn a return on equity on funds supplied not by their stockholders, but by the taxpayers of the United States. Such a policy, which is not mandated by law, would appear to be difficult to explain to the hard-pressed customers of Pennsylvania utilities.

Therefore, Met-Ed should not be permitted to earn on plant supplied by JDC funds at its rate of return on common equity. As a result, the capital structure proposed by Dr. Marcus is the appropriate capital structure.

B. The Appropriate Cost Of Preferred Stock Is 7.4%.

It is the position of the Office of Consumer Advocate and its witness, Dr. Marcus, that the appropriate cost of preferred stock is 7.4%. Both the Company in its filing and Mr. Brennan in his testimony use the same cost of preferred stock. Met-Ed Exh. B-2, C-2 at 28; Met-Ed Exh. L-1, Schedule 20. Therefore, there is no dispute between the parties on this issue.

C. The Appropriate Cost Of Long Term Debt Is 7.71%.

It is the position of the Office of Consumer Advocate and its witness, Dr. Marcus, that the appropriate cost for long term debt is 7.71%. The Company in its filing uses 7.70%, Met-Ed Exh. B-2, C-2 at 28, although Mr. Brennan in his direct testimony recommends 7.77%. Met-Ed Exh. L-1, Schedule 20.

The cost of debt recommended by Dr. Marcus is the current cost of embedded debt to the Company. It was calculated by updating Met-Ed Exh. L-1, Schedule 11 at 2, estimated December 31, 1978 composite cost of debt, to reflect the actual interest rate of 9% and an actual effective cost rate of 9.11% for the Setpember, 1978 issue. See Tr. 1493.

Use of the current cost of embedded debt has the advantage of being both reliable and representative of the data which is available to investors. In addition, since Met-Ed does not intend to issue any additional debt during 1979, the year end 1978 embedded cost is also representative of the cost of debt in the near-term future. See Met-Ed Exh. L-1, Schedule 11 at 3.

Therefore, the Consumer Advocate recommends that the Commission adopt 7.71% as the cost rate for long-term debt. However, since there is only one basis point difference between the Consumer Advocate's recommendation (7.71%) and the Company's recommendation (7.70%), the Consumer Advocate has no objection to the Commission using 7.70%.

D. The Cost Of Common Equity On A Net Original Cost Rate Should Be 12.1%.

1. Introduction

As stated by Dr. Marcus, rate of return regulation seeks to determine what is the necessary return on capital and provide the utility an opportunity to earn it. The allowed rate of return should be commensurate with the risks which investors assume. C.A. Statement 1 at 6. This requires a delicate balance.

> On the one hand, the utility must be allowed an opportunity to earn enough ' maintain the equity capital already committed, and to obtain additional capital at reasonable terms as the demand for utility services may require. On the other hand, the return allowed must not be so high a level as to contribute unnecessarily to inflationary trends or to encourage misallocation of resources.
>
> "Fair Return to Equity-Why and How?", Glassman, Public Utilities Fortnightly, mimeo at 3 (May 25, 1978).

The Company in its filing requested a rate of return on common equity of 14.00% to be applied to an original cost rate base. Met-Ed Exh. B-2, C-2 at 28. This is supposedly supported by the testimony of Mr. Brennan. Met-Ed witness Brennan has recommended a rate of return on common equity of 12.5% to be applied to a fair value rate base. Met-Ed Exh. L-1, Schedule 20. In addition, Mr. Brennan states that a "sufficient" rate of return on common equity using an original cost measure of value would be 14.75%, Id.

The Office of Consumer Advocate recommends that a rate of return on common equity of 12.1% applied to an original cost rate base will yield a fair rate of return. This recommendation is based on the findings and conclusions of Dr. Marcus that the fair rate of return on common equity is 12.1%. Having determined the fair rate of return on common equity using an original cost rate base, Dr. Marcus then states

that if his rate of return on common equity and overall rate of return are to be applied to a fair value rate base the rate of return should be adjusted downward in the same proportion that the fair value rate base is adjusted upward relative to the original cost rate base. Id. at 44.

If the fair rate of return is to be commensurate with the risks which investors assume, it is important to examine the business and financial risks of Met-Ed.

It is clear that the financial posture of Met-Ed is very healthy. First, Met-Ed has a higher common equity ratio than GPU and its subsidiaries and greater interest coverage before income taxes (BIT). In addition, the equity ratios of Met-Ed compare favorably with those of Moody's 24 public utilities and, indeed, with the industrial average of 35%. Tr. 1507.

	1977	1976	1975
Met-Ed-Equity Ratio	36.8	37.9	39.5
-Coverage (BIT)	3.2	3.1	3.3
GPU-Equity Ratio	34.5	33.4	34.4
-Coverage (BIT)	2.8	2.7	2.5
Moody's 24-Equity Ratio	36.7	35.2	34.2
-Coverage (BIT)	3.0	2.9	2.9

Compare Met-Ed Exh. L-1, Schedule 13 at 1 with Id., Schedule 9 at 1 with Id. Schedule 14 at 1. In fact it is only through the conscious efforts of Met-Ed to lower its overall cost of capital that Met-Ed is now approaching the industrial average. Tr. 1506. However, all parties agree that a higher common equity ratio implies a lower financial risk to the common stockholder, because there are fewer "fixed charges having a senior claim on the earnings available to pay for the use of capital." Tr. 1507 (Brennan)

Second, the construction program of Met-Ed in the future will be below recent levels. According to Mr. Hafer, the construction budget for the calendar years 1979 and 1980 are estimated to be $60 million and $72 million, respectively. This compares favorably with an actual construction budget of $101 million in 1977 and a forecasted budget of $94 million in 1978. Met-Ed Exh. K-7. As explained by Dr. Marcus, the advantage of a lower construction budget is that "the utility will not have to come in as frequently to raise capital at capital higher rates." Tr. 1629. Therefore, it will be able to exercise greater control over minimizing capital costs to the Company.

Third, Met-Ed will not require any equity contributions from GPU through 1980. Instead, Penelec and Jersey Central will be the recipient of GPU investments. Met-Ed Exh. K-9; Tr. 141, 1653. Furthermore, Met-Ed does not intend to raise any long-term debt through 1979, Met-Ed Exh. L-1, Schedule 11 at 4, Tr. 1653; and it expects to have little (1-1.5%) or no short-term debt through 1980. Met-Ed Exh. L 1, Schedule 10 at 3; Met-Ed Exh. K-9; Tr. 145, 1654. As stated by Dr. Marcus, "these are again very healthy kinds of financial circumstances to be in." Tr. 1654.

A fourth, related financial indicator is the ability of Met-Ed to internally generate funds. Not only does Met-Ed not require any contributions from GPU but it also pays out almost all of its earnings available to pay dividends to the parent company. Tr. 1504-5. As confirmed by Mr. Hafer, "Met-Ed's pay out ratio for 1977, and for any other years in recent history is 100 percent." Tr. 142. In addition, if Met-Ed is granted full rate relief it intends to pay GPU $160 million over the next three years. Tr. 143. One has to wonder the extent to which

Met-Ed ratepayers will be financing investments which do not benefit them.

In addition to the financial health exhibited by Met-Ed, one must also consider the regulatory climate in order to measure business risk. Due to the recent changes in the Pennsylvania Public Utility Law, attrition due to regulatory lag has been minimized. The authorization for the use of a future test year, coupled with a shorter suspension period and a provision that after that suspension period, absent a Commission decision, rates will automatically go into effect have all served to eliminate attrition due to regulatory lag. In addition, these provisions have substantially lessened many uncertainties associated with the regulatory process. Furthermore, the authorization of a new, more comprehensive energy clause has allowed for recovery of energy costs with minimal delay. Consequently, within the last few years, the regulatory climate in Pennsylvania has improved for all public utilities.

Therefore, both business and financial risks have declined for Met-Ed and will continue to decline, according to the Company's estimates over the near-term future. The fair rate of return on common equity, the return needed to keep and attract capital, should reflect this healthy picture.

2. Testimony of Dr. Marcus

The Consumer Advocate submitted the testimony of Dr. Matityahu Marcus on the issue of the fair rate of return on common equity. Dr. Marcus is a Professor of Economics at Rutgers University where he has taught courses in corporation finance, investment analysis, and public utility economics. He has also lectured on public utility

regulation to management people from electric and telephone utilities at the Rutgers Advanced Management program. Dr. Marcus has testified on the issue of fair return on common equity in several other jurisdictions as well as in other recent proceedings before this Commission.

Dr. Marcus clearly explained the principles which should be followed in determining what is a fair rate of return on common equity C.A. Statement 1 at 5-7. Equity capital, like any other input employed by a utility, must be obtained in the market at the going price. Just as the rate making process recognizes the costs of other inputs, such as labor or debt capital, based upon the prices paid for these inputs, so too rate making allows a return on common equity based upon the price for which it is obtained. Thus, for rate making purposes the fair rate of return on common equity is simply the market determined price, or cost rate of common equity.

Unfortunately the price of equity capital is not so easily ascertained as the prices of most other inputs. For example, the price of labor is simply a function of the wage rates and fringe benefits set forth in the Company's various labor contracts. Similarly, the price of debt is a function of the interest obligations owed to the Company's bondholders. More precisely, the cost rate of debt is the annual rate at which interest payments must be made to investors in exchange for the use of their capital.

Equity capital on the other hand is not obtained in exchange for a promise to make payments at any contractually set rate. Rather, it is obtained in return for claims upon the firms future earnings. Since these claims upon future earnings are necessarily uncertain in amount, investors who supply common equity receive in return a series of

expected future payments. The cost rate of common equity is a function of these expected future payments. Analagous to debt capital the cost rate of equity is the rate at which investors expect to receive future payments in exchange for the use of their capital, or simply the expected rate of return to the investor.

Estimating investors expected rate of return is a most difficult task requiring not only a knowledge of financial theory but also a good deal of judgement. Dr. Marcus, as is his usual practice, relied upon a number of methods in estimating this expected rate of return. As did Mr. Brennan, the Company's witness, Dr. Marcus applied these methods to Met-Ed's parent company GPU. Only GPU stock is publicly traded; Met-Ed obtains all of its equity capital from GPU.

First, we shall consider Dr. Marcus' discounted cash flow (DCF) study. The DCF method seeks to estimate the expected rate of return by relating the market price of a stock to the future dividend payments expected by investors. From this basic relationship one is able to derive an equation which states investors expected rate of return in terms of these two components, both of which are familiar to investors--namely the dividend yield and the expected long-term growth rate. Application of the DCF method entails estimating each of these components. Dr. Marcus characterized the DCF method as the "most rigorous" method for estimating the cost of common equity because "it addresses itself directly to the two components which in fact comprise the total return to be achieved by investors." Tr. 1576.

Dr. Marcus proceeded to estimate the dividend yield by examining monthly dividend yields over the past 5 years. The purpose of looking at dividend yields over a period of time rather than at a single

point in time is to avoid the effects of stock price fluctuations which cause ¯ yields to vary from day to day. Under certain circumstances it might be appropriate to simply take an average of the dividend yields over the last five years as representative of the current dividend yield. However, as Dr. Marcus pointed out, the past 5 years have been a time of extremely volatile stock price fluctuations. C.A. Statement 1 (Marcus), p. 18. The dividend yield of GPU reached a high of 16.0% during this time. As a consequence of this situation Dr. Marcus felt that the five year average dividend yield of 10.27% was not representative of the current dividend yield. For example, the average for the last 12 month period was 8.93%. Therefore, Dr. Marcus employs a dividend yield of 9.6%, a figure which in su stance strikes an average between the recent one year period and the more volatile five year period. C.A. Statement 1 at 14; Tr. 1592-3. This, Dr. Marcus notes, is "close to the yields observed presently in the market." Id. As stated by Dr. Marcus, the DCF method requires one to observe the dividend yield over a "relevant period," over a "normalized period." Tr. 1589.

> ". . . any time you move from market data such as dividend yields to the application of these concepts. . . judgement does enter, and it enters. . . particularly at the level where the appropriate periods are selected and the weights. . . are given to these particular periods. Tr. 1593.

Dr. Marcus then estimated the long-term growth rate expected by investors. This is the most difficult part of applying the DCF method. There is no formula which one can apply to a particula· set of data in order to come up with this expected growth rate. Judgment, therefore, necessarily plays a large role both in the selection of data which should be considered relevant to the estimation process and in the

interpretation of this .ta. Having said this, however, it is important to recognize that the DCF analyst is not free to make whatever adjustments he would like in the name of judgement. Moreover, it is important to keep in mind exactly what the objective of this judgement process is and what it is not. Specifically, it is not the DCF analysts task to estimate the growth rate which he may feel is appropriate nor even to estimate what he feels the growth rate will be over the next year or so. Rather, his objective is to estimate what the market, or what the typical investor perceives to be the Company's growth rate. Tr. 162.

Since the DCF analyst is trying to estimate the investors expected long-term growth rate he must begin by familiarizing himself with data which is readily available to investors and upon which a typical investor is likely to rely in forming a growth expectation. An obvious starting point in this process is to look at a stocks historical growth performance. Growth rates in dividends, earnings per share, and book value per share are widely reported by investment services and in the financial press. It is simply implausible to assume that a typical investor who is attempting to assess the growth prospects of a stock would entirely ignore its past growth performance.

On the other hand, it is equally unrealistic to assume that investors mechanically extrapolate the historical growth rate over a specific past period into the future. Hence, it is necessary to evaluate historical data in the context of the circumstances prevailing in the past particularly where investors may perceive these circumstances to have changed. Furthermore, it is important to explicitly consider current conditions which might affect investors expectations of future dividend growth.

Dr. Marcus began his study by examining past growth rates in dividends, earnings per share, and book value per share. His study revealed what would quickly become apparent to an investor who paid any attention at all to the GPU's past performance; namely that GPU has historically been a slow growth company. Tr. 1621. The growth rate in dividends over the preceeding ten years was .98% (1967-77). Updating this to include 1978, for which partial data was available and using $1.80 for the 1978 dividend rate, gives a growth rate of 1.16%. Looking at the recent five year period shows roughly the same picture: 1.29% growth for 1972-77 and 1.71% for 1972-78. C.A. Statement 1, Schedule MM 10.

GPU also appears to be a slow growth company based upon earnings experience. Earnings growth rates, during both the preceding five year period 1972-77 and the preceding ten year period (1967-77) were less than 2% (1.42% and 1.63%, respectively). Id.

Finally, Dr. Marcus looked at growth rates in book value per share which were less than 1% during both the preceding five year and ten year periods. Based upon his examination of dividends, earnings and book value per share, Dr. Marcus concluded that historical data taken alone would indicate an expected growth rate of something less than 2%. C.A. Statement 1 at 17.

Dr. Marcus then went on to examine recent corporate developments which might affect investors long-term growth expectations. Such developments have manifested themselves to investors through the improved financial performance of the Company. The degree to which this recent upturn has affected investors long-term growth expectations is not clear. However, Dr. Marcus believes that it has had a noticable

positive effect on investor's expectations. Based on this assumption as well as the Company's historical record Dr. Marcus concluded that investor's expectations are presently in the vicinity of 2.5%. C.A. Statement 1 at 17-18.

As called for by the DCF method, Dr. Marcus then summed the dividend yield and the expected growth rate to derive a cost of equity of 12.1%. C.A. Statement 1 at 20.

To check his application of the DCF method, Dr. Marcus also applied that method (using the 5 year and 1 year average monthly dividend yields) to the largest 32 and 32 medium electric utilities listed on the New York stock exchange. The resulting dividend yields were 8.79% and 8.65%, respectively. Applying the average growth rates for each group, the resulting costs of equity indicated were 11.43%-11.75% and 11.22-12.21%, respectively. C.A. Statement 1 at 22-23.

Dr. Marcus also employed the earnings price method in estimating the cost of equity. He explained that under certain circumstances the earnings price ratio _may_ approximate the return expected by investors. C.A. Statement 1 at 23-4. However, because the earnings price method does not give any explicit recognition to investor's grown expectations, as does the DCF method, there will be circumstances when earnings price ratios will understate the cost of capital as well as other circumstances when earnings price ratios overstate the cost of capital. _Id._ at 24. The Company's rate of return witness, Mr. Brennan, also agreed that the earnings price ratio may overstate or understate the cost of capital. Tr. 1540. With the caveat, Dr. Marcus notes that GPU's average earnings price ratio for the last 12 months is 12.63%. _Id._ at 25, MM-17.

Given the "volatility of earnings-price ratios," Dr. Marcus checked his resulting 12.63% for GPU through the application of a comparable earnings study to both utility and non-utility companies. In his testimony he stated that the average earnings-price ratio for the 32 largest utilities is 12.48% and for the 32 medium utilities is 11.68%. Id. at 26. The summary data for the electric utility industry supports this range.

> Q. Have you examined the returns on equity of representative electric utility groups?
>
> A. Yes. I report the returns for Moody's electric group; the 32 medium and largest; and for all class A&B electric utilities. The averages range from a low of 10.75% to a high of 12.56%, depending upon the group and the period (Schedule MM-19). For 1977, the industry's return averaged at about 12%. Id. at 29.

With respect to the electric utility industry as a whole, it is clear that Dr. Marcus's recommendation is "in the ball park."

Dr. Marcus also used the spread method in which he estimated a relationship between the premium of equity returns over bond yields, and related that to the price-to-book ratio. Using the results of this study, and some reasonable assumptions about current bond yields and desired price to book ratios, he estimated a common equity cost rate in the range of 11.51% to 12.19% for a price-to-book of 1 and 1.15 respectively. C.A. Statement 1 at 30-32.

In summary, each of Dr. Marcus' four studies support his recommendation of a 12.1% equity cost rate to be applied to an original cost rate base. This conclusion is based upon a well reasoned analysis and should be adopted by this Commission.

In prior Met-Ed and Penelec rate cases, Dr. Marcus has recommended adding to the cost of equity an amount to compensate for flotation, or selling costs and market pressure of new issue which otherwise might cause dilution in book value. However, in the case at bar, Dr. Marcus recommends that the allowance for selling costs and pressure not be granted. An examination of the purpose of this allowance reveals ample justification for not granting flotation costs to Met-Ed.

The cost of equity is the return required by investors and hence it is the supply price of equity. C.A. Statement 1 at 33. This concept is explained by Dr. Marcus as follows:

> A. The supply price, when applied to the common equity, is analogous to fair price of anything else. When we talk about the supply price of oranges, we are talking about the current price of the available supply. If one were to say that the demand would double, what would be the price, obviously the price would change.
>
> So the supply price for common equity is within the same context. Given the demands and supplies in capital markets, investors by their purchases of GPU indicate the price they expect, but it is within the existing framework of the industry, the firm and capital markets.
>
> . . . .
>
> Q. . . . what is the difference between "price" and "supply" costs?
>
> A. Actually, there is no difference. "Price" is a transaction at which suppliers and demanders agree. I think when we talk about the cost of common equity, one tends to emphasize it is a supply price because there is concern about attraction of capital. Tr. 1644-5.

Although "supply price" or the "cost of equity" is the rate at

which a company can maintain the capital it has and attract new capital when needed, a higher return on equity is sometimes allowed to compensate for flotation. These costs are incurred in the following way:

> When a company issues new equity, it incurs various selling costs. In addition, the price of new issue may temporarily decline. Allowance for these costs should be based on reasonable estimates of their magnitude, and should only be awarded if future sales are probable. C.A. Statement 1 at 33.

The first component of these costs, the "selling costs", is due to underwriting fees. The other element is due to the temporary decline in market price, or pressure, which may result from an increase in the supply of the stock. Id at 33-34.

Upon examining Met-Ed's financial situation, Dr. Marcus discovered that Met-Ed has no need to raise equity capital through market offerings. Met-Ed has not benefitted from GPU sales of common stock for the past three years and does not anticipate receiving any such contributions from GPU through 1980. Met-Ed Exh. K-9. Therefore, Met-Ed will not incur or cause the incurrence of market pressure or selling costs for the foreseeable future. Since there will be no concomitant dilution in book value, there is no need to compensate for that dilution by allowing for flotation costs. Consequently, the fair rate of return under these circumstances is the cost of equity, 12.1%.

In the event, however, that the Commission finds that an allowance for flotation costs is warranted, this allowance should not exceed 7.5% of the stock's pre-issue price. This conclusion is supported by Dr. Marcus' study of actual flotation costs from January 1, 1975 through December 31, 1976 which showed that the average flotation

costs of all new electric utility issues was 6.3%, consisting of 2.3% market pressure and 4% underwriting fees. C.A. Statement 1 at 34-5. In addition, even Mr. Brennan's study, which he allegedly uses to support a 10% flotation cost, actually shows that for issues of $50-100 million, the average flotation costs are 7.8%, including underwriter's fees, company expenses and market pressure. Tr. 1562-3. In light of these findings, Dr. Marcus' 7.5% allowance is certainly reasonable.

The proper way to apply the 7.5% allowance to the cost of equity is to assume that the selling price of stock is 7.5% lower than it would otherwise be, reflecting the fact that the proceeds from the sale are expected to be 7.5% less than the normal market price. This has the effect of increasing the dividend yield component from 9.6% to 10.38% and the cost of equity with flotation costs from 12.1% to 12.88%. C.A. Statement 1 at 36-7.

However, to reiterate, it is the recommendation of the Office of Consumer Advocate and its rate of return witness, Dr. Marcus, that an allowance for flotation costs is not warranted and that the fair rate of return for Met-Ed should be 12.1%.

3. Testimony of Mr. Brennan

Met-Ed has presented the testimony of Mr. Brennan in support of its claim for a 14% return on the common equity portion of an original cost rate base. Mr. Brennan's testimony, however, is so internally inconsistent as to preclude the Commission's reliance on his rate of return estimates.

Mr. Brennan's testimony has been considered by this Commission, and indeed by this Administrative Law Judge, numerous times in the past. His methodology in this case is virtually the same as that

in numerous other cases. Consequently, the Office of Consumer Advocate has had several opportunities to criticize his approach. For the sake of brevity, I will refer the Commission and the presiding Administrative Law Judge to the Consumer Advocate's prior briefs and just highlight Mr. Brennan's inconsistencies here. See Briefs of the Pa. Office of Consumer Advocate, Pa. PUC v. Bell Telephone Co., RID 367; Pa. PUC v. Penna. Electric Co., RID 392; Pa. PUC v. Metropolitan Edison Co., RID 434; Pa. PUC v. Phila. Electric Co., RID 438.

First, adoption of Mr. Brennan's methodology can result in any number of figures other than those he supports. Mr. Brennan recommends a 12.5% rate of return on common equity applied to a fair value rate base. His primary method for developing this rate of return is the earnings price ratio, and, in particular, the earnings price ratios of GPU over the last five years, excluding 1974 and 1975. Tr. 1531. The GPU earning net proceeds or earnings price ratio for those years averaged 13%. Mr. Brennan then admits that Met-Ed is less risky than GPU, Met-Ed Statement L at 37, and states that the way to reflect this less risky status, as measured by the difference in common equity ratios, "is to make a two-tenths of one per cent change in cost rate for each point charge in equity ratio.." Tr. 1532. On that basis the figure comparable to 13% for GPU is 12.2% for Met-Ed. Tr. 1532. Deciding that this figure is too low, Mr. Brennan then moves away from his averaging technique and, on the basis of "judgement", decides that 12.5% and not 12.2% is the fair rate of return for Met-Ed. Tr. 1532-3. It is submitted that Mr. Brennan's technique is highly speculative, unreliable and opportunistic at a time when more precise methods are readily available.

Second, Mr. Brennan alleges that this 12.5% rate of return to be applied to a fair value rate base is "market related." Tr. 1541. However, he has to admit, and does, that investors in the market place have no idea what a fair value rate base is.

> Q. Does the typical investor purchasing electric utility stock know what the fair value rate base in Pennsylvania is?
>
> A. I doubt if he is. He is not concerned with the [rate base] at the time he is making his judgement as to what the Commission might say the fair value rate base is or what they said it was. Tr. 1541.

There is only one logical conclusion that can be drawn from this statement: That the 12.5% may be money market related but that the application of this 12.5% to a fair value rate base is not money market related, at all. Consequently, using Mr. Brennan's methodology, 12.5% is a fair rate of return on any rate base including an original cost rate base in the minds of investors. Furthermore, since investors are aware of capitalization and since capitalization is close to original cost, it is far more logical to conclude that if 12.5% is a fair return at all, it is a fair return only on an original cost rate base.

Third, Mr. Brennan is unable to explain the relationship between his 14.75% rate of return on the common equity portion of an original cost rate base and his estimated 12.5% rate of return on the common equity portion of a fair value rate base. All we know about the relationship is what it is not. As stated by Mr. Brennan, the two are not equivalent in the minds of investors. Tr. 1544-5. They would produce different earnings price ratios, Tr. 1533, different price to book ratios and different market prices. Tr. 1552-3. This leaves us competely in the dark about the derivation of Mr. Brennan's 14.75%

return because, while Mr. Brennan spends untold pages trying to justify his fair value rate of return on common equity, his original cost rate of return on common equity is left unsupported. Yet, the Company, in its filing, requests a 14% rate of return on common equity and applies that to an original cost rate base presumably on the basis of Mr. Brennan's testimony. Met-Ed Exh. B-2, Statement of Reasons at 7.

The Company's reliance on an original cost rate base in its filing is the most convincing testimonial that a fair value rate base is an unreliable foundation on which to build a revenue requirement. In addition, the Company's use of 14% return on original cost common equity stands unsupported since Mr. Brennan is unable to tie his 14.75% return on original cost common equity to any foundation. Furthermore, Mr. Brennan's testimony is largely irrelevant to the Company's claim since his testimony is based on some undefined fair value rate base and the Company's claim is based on original cost.

Fourth, Mr. Brennan freely admits that he is not aware of what the fair value rate base will be in this case and was not even aware of what the Company's claim for that rate base would be when he prepared his testimony. Tr. 1498. All he knows is that "the fair value of the property is more than the original cost of the property". Tr. 1534. On this slim reed, Mr. Brennan bases his conclusion that 12.5% is the required rate of return on the equity portion of a fair value rate base. However, once Mr. Brennan was asked to compare 12.5% on the common equity portion of a fair value rate base with 14.75% on the common equity portion of an original cost rate base, it became clear that he, and any investor, would have to know what the fair value rate base was, in order to determine the fair rate of return. See Tr. 1547-1553. The

reason for this is clear--without knowing the rate base it is impossible to calculate the financial consequences of a given rate of return, and without knowing the financial consequences, one is unable to make rational decisions in the market place. One can only conclude that Mr. Brennan's "fair rate of return" on the common equity portion of a fair value rate base has nothing to do with the financial consequences to investors and, therefore, has nothing to do with maintaining and attracting capital.

Last, Mr. Brennan uses a 10% factor to adjust for flotation costs. Met-Ed Statement L at 24. This, he alleges, is "a reasonable assumption. . . based upon the results of recent studies I have performed relative to the recognition of market pressure, selling and issuance expenses incurred in raising new common stock capital by utilities." Id. As stated earlier, this study shows flotation costs of 7.8%, not 10%, for the most common sized issue. Tr. 1562-3. Furthermore, even if 10% were supportable, Mr. Brennan's application of that 10% produces an excessive return. As noted by Dr. Marcus, the flotation allowance should only be applied to that part of the return which represents dividend yield. To apply the allowance to the full cost of equity will yield a market price well in excess of 10% over book. C.A. Statement 1 at 38-39 (e.g. 20% over book). Both this Commission and rate consultants have spoken against such high market to book ratios. See e.g., Pa. P.U.C. v. Pennsylvania Electric Co., RID 392 (June 22, 1978) (25%); Glassman, supra Public Utilities Fortnightly (May 25, 1978).

Therefore, Mr. Brennan's testimony can not be used to support the Company's fair value or original cost rate base claim. It must be

disregarded by this Commission if the Commission is to arrive at a justifiable rate of return.

E. Conclusion

It is the position of the Office of Consumer Advocate that the overall rate of return which should be allowed to Met-Ed on an original cost rate base is 9.21%. This is calculated as follows:

CAPITAL STRUCTURE AND CAPITAL COSTS

	Percent of Capital	Cost Rate	Weighted Cost Component
Common Equity	35%	12.10% 12.90%*	4.24%
Preferred	13	7.40	0.96
Long Term Debt	52	7.71	4.01
Total:	100		9.21
			9.49*

*Including selling cost allowance, if allowed.

V. REVENUES AND EXPENSES

A. Introduction

The rate making treatment of revenues and expenses must be consistent with the test year methodology employed. Proper application of fundamental rate making principles requires that the level of investment in rate base must be paired to an appropriate set of expenses which, in turn, must match a corresponding set of revenues.

Met-Ed has filed its rate increase application with a future test year ending March 31, 1979; the OCA agrees with this choice but it is from this point onward that the approaches of OCA and Met-Ed diverge. Met-Ed has proposed to use rate base figures reflecting a year end level of investment. Having made this choice, Met-Ed, consequently, has had to take their budgeted year end revenues and expenses and perform various normalization adjustments, in order to arrive at a set of revenue and expense values that would equate with and correspond to their year end level of investment. See OCA State. 2-A, §I, p. 8. In various instances Met-Ed has adjusted budgeted expense figures in an attempt to reflect the financial impact of altered circumstances extending well beyond the end of their chosen future test year. In their revenue normalization, the projected figures have not been normalized to reflect the year end level of sales; but the Company has not recognized all revenue growth occurring outside the test year that could partially or completely offset the past test year increased expenses they are claiming in this case.

As described earlier in §I-A, Mr. Madan has chosen, conservatively, to utilize a rate base representing an average level of investment in the future test year with only two refinements:

result, OCA submits that the use of an average rate base and the proper corresponding revenue and expense figures provides this Commission with an accurate financial picture of Met-Ed that is free of complex and confusing adjustments to projected year end data.

As the income portion of Summary Schedule 6 in OCA Statement 2-A indicates, many of OCA's below described revenue and expense recommendations as to a proper pro forma income statement are purely the unavoidable result of the necessity to "unadjust" Met-Ed's year end revenue and expense figures in order to make them consistent with an average test year rate base. For those adjustments and parts of adjustments identified on lines 11 through 21 of Schedule 6, the applicable test year principles described herein and earlier in § I-A should be considered to be incorporated in the discussions below by reference.

Finally it should be noted that all the revenue and expense adjustments discussed below are made without consideration of Met-Ed's investment in TMI-2; TMI-2 income issues shall be handled comprehensively in the last two sections of this part.

B. Met-Ed's Test Year Operating Revenues Must Be Reduced By $2,067,000 To Remove The Revenue Effect Of The Company's Year End Rate Base Approach And To Reflect The Revenue Impact Of The Commission Order In R.I.D. 434.

Consistent with the preceding discussion of average rate base and the appropriate corresponding revenue and expense figures, Mr. McAloon has proposed the reduction of Met-Ed's pro forma operating revenues by a total of $5,120,000. This figure represents the difference between the normalized year end level of revenues that the Company has proposed in order to correspond with its year end rate base,

and the actual revenues expected to be realized during the future test year. OCA Statement 2-A, § II, p. 44 and Schedule OI-1, p. 2.

Having determined the actual test year revenue figure consistent with OCA's proposed average rate base, Mr. McAloon has increased this figure by $3,053,000. The adjustment is required because Met-Ed did not reflect the impact of the Commission's September 18th Order in R.I.D. 434 in their pro forma income statement in this case. The revenue figures described on Met-Ed Exhibit B-2, §G-2 p. 1, as the additional revenue requirement sought excluding TMI-2 represents all of the additional revenues Met-Ed requires above the normalized revenues produced by the rates in effect at the time of this filing -- Tariff 41 Supplement 44. Tr. 2325. However, while reference to the decision in R.I.D. 434 is made in Met-Ed's Statement of Reasons (Met-Ed Exhibit B-2, §A p. 5), the normalized test year revenues in this filing do not reflect the increase in base revenues granted by this Commission in its Final Order entered on September 18. See Met-Ed Exh. B-2, §G-2, and Tr. 2324-2326. In order to ascertain the proper level of additional revenues required in the aftermath of the Commission's Order in R.I.D. 434, test year revenues must be adjusted to reflect the financial impact of the rate relief recently granted to the Company.

The Commission's Order in R.I.D. 434 granted Met-Ed $2,772,000 in additional revenues based upon March 31, 1977 historical test year sales of 7,264,657 Mwh. (Cite page of mimeo decision in 434). See Pa. P.U.C. et. al. vs. Metropolitan Edison Co., R.I.D. 434, (Sept. 18, 1978). Recomputation of revenues based upon the instant case's March 31, 1979 test year sales of 7,999,988 Mwh yields $3,053,000 of additional revenues that must be added to the test year revenues in this case. See

OCA Statement 2-A, p. 44 and Sched. OI-1, p. 3. In conclusion, in total, Met-Ed's operating revenues claim must be reduced by $2,067,000.

C. Met-Ed's Total Energy Expense Must Be Reduced By $1,263,000 To Remove Adjusted Energy Expenses Associated With The Company's Normalization Of Year End Revenues.

Consistent with the above recommended adjustment to reduce base revenues to a level consistent with the use of an average test year, OCA recommends the elimination of that portion of Met-Ed's total energy costs included in base rates, that reflect a normalized year end level of energy expense. Mr. McAloon computed this adjustment of OCA Statement 2-A Schedule OI-2 and testified on direct to this adjustment at Statement 2-A § II p. 45.

D. Met-Ed's Claimed Payroll Expenses Have Been Overstated By $3,727,000.

In its filing the Company has claimed $37,712,000 for its payroll expense as adjusted for year end conditions. OCA proposes four distinct adjustments to this claim that result in a total recommended reduction of $3,727,000. OCA Statement 2-A § II, pp. 45-46 and Schedule OI-3.

First, Met-Ed has claimed $2,572,000 in additional payroll expenses for a wage increase that will only first become effective in May of 1979. The full annual effect of this wage increase will not be felt until 13 months after the end of the Company's chosen future test year. While the Company is proposing to use a March 31, 1979 year end rate base, it is nevertheless totally inappropriate and inconsistent for Met-Ed to stretch out beyond the future test year for this set of increased expenses when it is not likewise willing to reach beyond the

end of the test year for the additional revenues which must result from the growth in customers and usage expected to occur during this same 13 month period beyond the future test year! Acceptance of this out of period expense adjustment would result in a serious mismatch of revenues and expenses, distorting the true financial condition of the Company. Furthermore, as discussed in section I-A of this brief, such rate case treatment would be contrary to law or sound regulatory practice.

The impropriety of this adjustment is even more pronounced when one is using an average test year methodology. The proper matching of revenues and expenses to rate base investment make it inaccurate to utilize normalized test year revenue and expense figures with an average rate base. To "unadjust" Met-Ed's various revenue and expense adjustments and yet reach beyond the test year for an out of period expense increase would result in an even more bizarre mismatch of revenues and expenses. Mr. McAloon testified to this adjustment in his direct at OCA Statement 2-A § II p. 45 and computed this adjustment in his Schedule OI-2.

The second payroll adjustment concerns that portion of Met-Ed's payroll expense claim that represents cost increases due to the monthly meter reading which was to have been performed pursuant to 76 PRMD 10. Mr. Creitz has testified for Met-Ed that it has altered its response to 76 PRMD 10 and will not be reading meters on a monthly basis as originally contemplated in this filing. Tr. 123-124. On September 13, 1978, Met-Ed filed a revised version of Met-Ed Exhibit B-2, § G-2 p. 14 in which $441,000 of payroll expenses associated with this matter have been eliminated. Consequently, OCA recommends the elimination of this amount from Met-Ed's initial payroll expense claim in this case. OCA Statement 2-A § II, p. 46.

Third, consistent with the earlier discussion of the proper treatment of taking revenues and expenses "as they fall" when using an average test year, the Office of Consumer Advocate proposes to eliminate the Company's adjustment to increase budgeted test year payroll expenses by $480,000 to reflect their year end level of employees. See OCA Statement 2-A § II p. 46.

Finally, the Company has proposed an adjustment to payroll of $234,000 to reflect the payroll for TMI-I at a mature level of operations. See OCA Statement 2-A, Schedule OI-3, p. 4. As Mr. McAloon testified in his direct:

> In the prior case (R.I.D. 434) the period which included the current test year was projected as the year of maturity for TMI-1. However in this case Met-Ed still insists on increasing its projected level of expenses for TMI-1 based above the amount budgeted for the test year on a mature level of operations. Because of the uncertainties involved in determining when a mature level of operations will be reached and the fact that the Company has made no adjustment to recognize the offsetting growth in revenues that will be realized when the plant reached maturity, I recommend that $234,000 be reduced from the Company's claim for TMI-1 payroll expenses. OCA Statement 2-A § II p. 46.

Furthermore, based upon the testimony of Mr. Herbein, it is clear that TMI-1 is already a definitionally mature unit. Mr. Herbein states that maturity is reached after the third refueling when the capacity factor between subsequent refuelings is expected to reach 80%. Tr. 511-513 and see Met-Ed Exh. D-25. The third refueling of TMI-1 was completed on May 2, 1978, and, since that point, its capacity factor has been well in excess of 80%. Tr. 514-515. Mr. Herbein testified that "from a management judgment standpoint, and for planning purposes that, yes. Three Mile One is in essence mature." Tr. 514.

From the above, it is clear that the payroll "maturity" normalization proposed by Met-Ed is not actually tied to an additional level of expenses necessary to support TMI-1 when it becomes operationally mature. At transcript pages 515-516, Mr. Herbein forecasts that TMI-1 O&M expenses, for the year ending March 31, 1979 will be over-budget. To the extent that actual TMI-1 O&M expenses exceed budget, the Company is being fully compensated for this (as well as all of their other budget v. actual discrepancies) in Section V. R. of this brief in which OCA proposes a composite adjustment for all revenue and expense variations between actual and budget as of 10-31-78. However, if Mr. Herbein's above-mentioned over budget forecast does not materialize, Met-Ed's proposed adjustment of 3-31-79 budgeted data for TMI-1 O&M expenses would constitute their hedge against the possibility of TMI-1 expenses increasing, at some point in the future, if programs to further improve plant operations are implemented or additional regulatory requirements are developed. Tr. 516-517.

The basis for this adjustment is laid out in OCA Statement 2-A, Schedule OI-3, page 4.

E. Met-Ed Has Overstated Its Other Operations And Maintenance Expense By $1,195,000.

Met-Ed has claimed $42,918,000 for its other operations and maintenance expense as adjusted for year end conditions. Mr. McAloon proposes five distinct adjustments to this claim that result in a total recommended reduction of $1,195,000. OCA Statement 2-A, §II, pp. 47-48, and Schedule OI-4.

First, the Company has claimed $165,000 adjustment for additional Other O&M expenses required to serve a year end level of customers. Met-Ed Exh. B-2, G-2, p. 12. Consistent with Mr. McAloon's testimony and OCA's above recommendations relative to the use of an average rate base and the elimination of annualized revenues and other annualized expenses, this adjustment must also be eliminated.

Second, Met-Ed has claimed a total of $448,000 in adjustments to Other O&M expenses to reflect the increased employee benefit costs coinciding with the various adjustments it has made to payroll expense (see §V-D of this Brief). These additional claimed expenses consist of increases in workman's compensation, pension costs, life and hospitalization insurance corresponding to the Company's adjusted payroll figures. Consistent with his treatment of Met-Ed's various payroll adjustments described in Section V-D. above, Mr. McAloon has proposed that the increased employee benefit costs, associated with (1) year-ending the number of employees (2) adjusting TMI-1 payroll to reflect a "mature" level of operations and (3) attempting to claim the expenses associated with the May 1, 1979 out-of-period wage increase, all be removed from the Company's claim for Other O&M expense. The data basis and computations supporting these adjustments are described thoroughly in Schedule OI-4, page 2, of OCA Statement 2-A.

Third, consistent with the Company's decision not to implement monthly meter reading and the resulting removal of the related payroll expense adjustment discussed in Section V-D., Mr. McAloon recommends the exclusion of $184,000 of "PRMD 10 related" Other O&M expenses associated

with monthly meter reading. See OCA Statement 2-A, §II, p. 47, and Schedule OI-4, p. 5, and Met-Ed Exh. B-2, G-2, p. 14.

Fourth, OCA proposes to reduce Met-Ed's claimed research and development expense for the test year by $418,000. This adjustment, which was supported by the direct testimony of Mr. McAloon, consists of two facets: the claim for local research and development is reduced by $266,000, the $152,000 claim for participation in the Liquid Metal Fast Breeder Reactor is totally excluded. OCA Statement 2-A, §II, pp. 47-48, and Schedule OI-4, pp. 3-4.

The Company's Exhibit B-47 indicates a test year budgeted level for local R&D expense of $394,000, which is more than 300% above Met-Ed's most recent complete calendar year expenses in this area (1977--$128,000). See Met-Ed Exh. B-112-2, p. 2. Exhibit B-112-2 indicates that the 1977 figure was not atypical since local R&D for calendar years 1977, 1976 and 1975 have been $128,000, $160,000 and $120,000 respectively. Furthermore, while Met-Ed is supposed to spend 20% of its annual E.P.R.I. assessment on local projects (Tr. 940-942), in each of the above years the Company has never come close to meeting this obligation.

As of the date of the filing of OCA's revenue and expense testimony in this case (OCA Statement 2-A), the Company had not indicated any definitive plans as to how and when they would spend their $394,000 of claimed local R&D expenses. Furthermore, Met-Ed Exhibit B-112-1 illustrates that in the first five months (April-August 1978) of the test year, it spent only $76,000 of the budgeted amount.

Despite this fact, as part of its rebu[illegible] offered on December 7, 1978, the Company submitted Exhibit B-112-4, which indicates that during the ten months ending October 31, 1978, local R&D expenditures totaled $273,000! This latest information suggests that the 1978 calendar year local R&D figure will be more than double 1977's figure. Nevertheless, OCA submits that this 1978 data, when compared with the Company's expenditures in the three previous years and the only actual test year data offered in this case, clearly represents an abnormal and atypical level of expenses. OCA recommends that the level of actual local R&D experienced in 1977 be the maximum amount allowed as a reasonable utility operating expense in this case and that, consequently, Met-Ed's expense claim be reduced by $266,000.

Furthermore, Met-Ed's other operations and maintenance expense claim for anticipated contributions to the Liquid Metal Fast Breeder project must be disallowed in its entirety. See OCA Statement 2-A, §II, p. 47, and OI-4, p. 3, and Met-Ed Exh. B-47. The program, also known as the Clinch River Project, has been the source of continued controversy and uncertainty. As of the date of the close of hearings in this docket, Met-Ed has yet to make payment to the Breeder Reactor Corporation of its $152,000 obligation for either the 1977 or 1978 year. Tr. 113 & 2317. As of this time, Met-Ed's liability to make these payments remains a matter of speculation. As Mr. Huff testified:

> . . . on October 18th of this year the President signed House Joint Resolution 1339, which became Public Law 95-492, and it included $172,400,000 in funding for the Clinch River breeder reactor project. While it is not clear at this time whether the future of that project or what the future of that project, rather, might be, we have indications under our contractual obligation that if the project does go ahead and if there is a full go situation, .

. . Met-Ed would be compelled to submit to Breeder Reactor Corporation all of the monies not paid back through December 1977. Tr. 2316-2317, emphasis added.

. . . . . .

Q. . . . When do you anticipate you have to make those payments?

A. I guess the answer to that is that when we are advised that it is a go project, as of this moment . . . at least for the current year term, we do not have to make payment. We do not have to make the 1978 payment. We have been so advised by the Board of Directors of Breeder Reactor Corporation. Tr. 2328.

In view of the continued doubts that Met-Ed will actually be required to make any payment for this project, the full $152,000 should be excluded from the Company's R&D expense claim. The Consumer Advocate respectfully submits that a payment not made for a moribund program should not be borne by ratepayers.

Fifth, and finally, a small positive adjustment of $20,000 must be made to Met-Ed's total Other O&M expense claim. Consistent with OCA's view (see §§V-D & E of this Brief) that no adjustment should be made to Met-Ed's TMI-1 budget to re lect the additional anticipated costs of a mature level of personnel at TMI-1, we must take the test year's budget for TMI-1 O&M to be representative of an already achieved "mature" level of expenses. Consequently, as indicated on OCA Statement 2-A, Schedule OI-4, p. 6, Met-Ed's test year claim for Other O&M expense for TMI-1 must be increased by $20,000 to reflect the budgeted level o expense for the test year.

F. Met-Ed's Amortization Of Deferred Energy Costs Should Encompass A Ten-Year Period.

At the direction of the Commission, Met-Ed is changing to a new net energy clause. Met-Ed, in its original filing in this case, budgeted $9,100,000 in energy costs that will remain unrecovered when the transition to the new energy clause is completed on March 31, 1979. Met-Ed Exh. B-2, G-2, p. 19. The Company has proposed to collect this unrecovered balance through base rates over a five-year period. The Office of Consumer Advocate submits that any unrecovered energy costs should be recovered over a ten-year amortization period.

It must be emphasized that the transition between the old and new energy clauses is not a recurring event. Consequently, equity requires that the financial burden placed upon ratepayers should be minimized. OCA Statement 2-A, §II, p. 48. Furthermore, the use of a ten-year amortization period will not disadvantage the Company since it has requested that it be allowed to earn a return on the unamortized balance. See §I-H. of this Brief and Met-Ed Exh. B-2, C-1, p. 1.

In the course of the cross-examination of Mr. McAloon, the Company suggested that the use of a five-year period would, perhaps, be more likely to result in the recovery of these deferred energy costs from the same customers who were responsible for the incurrence of these costs. Tr. 1770. There is no evidence in this record that gives any indication of the frequency with which Met-Ed customers leave the Company's service area.

Even more importantly, if the Company's purpose here is to assure that its customers are treated fairly, OCA submits that the amortization period for the payment of deferred energy costs must be

consistent with the amortization period used in the rate recognition of the amortization to net income of Federal Income Tax refunds! Tr. 1771. Met-Ed is amortizing its tax refunds over a ten-year period; consistent with this approach, Mr. McAloon has recommended the use of the same ten-year period for the treatment of both the deferred energy costs and the deferred tax reduction discussed in §V-O below. See OCA Statement 2-A, §II, p. 54. By adopting a consistent approach to these various amortizations, the Commission will be assuring that unrecovered costs of utility service are being passed along to Met-Ed customers at the same speed that unrecouped benefits are being recognized in rates.

In its wrap-up, the Company has increased its deferred energy claim to $14,021,000. Met-Ed Exh. B-144, p. 6. This increase is apparently due to the higher energy costs that have resulted from the delay of the May 31, 1978 in-service date for TMI-2. Had the commencement of commercial operations for TMI-2 not been postponed for some seven months, Met-Ed would not have incured these higher fuel costs. Applying, OCA's suggested ten-year amortization to this new amount yields an annual expense for deferred energy of $1,402,000 to replace the $910,000 expense originally identified by Mr. McAloon in Schedule OI-6, line 2 of OCA Statement 2-A.

Consistent with OCA's recommendations contained in OCA Statement 2-B, regarding the regulatory treatment of Met-Ed's investment in TMI-2, it would be appropriate to deny the Company a return upon the higher unamortized balance of deferred energy costs that resulted from the TMI-2 construction delays. This issue is treated in Section I. H. of this Brief. Similarly, to the extent that these higher energy costs were a direct result of the delays that arose due to managerial

imprudence or abnormal occurences in the construction of TMI-2, the exclusion of any increased deferred energy expense relating to these events would be supported by the record in this case. Conservatively, OCA has not recommended a disallowance of these higher expenses.

Finally, to avoid confusion, it must be noted that Mr. McAloon's recommendation that the amortized deferred energy expense be reduced to reflect the reduced income taxes associated with this expense (OCA Statement 2-A, §II, p. 48, Schedule OI-5, line 3) has been retracted. A complete review of the data provided by the Company reveals that such an adjustment to this expense claim would not be appropriate.

In summary, OCA accepts the higher claim for unrecovered energy costs, urges the adoption of a ten-year amortization period, and thus recommends that Met-Ed's expense claim for amortization of deferred energy costs be reduced to $1,402,000.

G. Met-Ed's Expense Claim For Uranium Development Costs Must Be Disallowed.

In its initial filing, the Company stated its intention to seek a normalization adjustment to test year expenses of $243,000 for uranium exploration. Met-Ed Exh. B-2, G-2, p. 1, 20. The filing contained no data to support this claim. The testimony of Mr. Zodiaco and supporting exhibits were first made available to the parties and identified for the record on November 21, 1978. Tr. 1785. The Office of Consumer Advocate filed a motion to strike, which was granted by the Presiding Administrative Law Judge. Tr. 1832. Inasmuch as the claim is not supported by any evidence in this proceeding, the entire $243,000 expense must be disallowed.

H. Met-Ed Has Improperly Failed To Reduce Operating Expense To Reflect The Amortization Of The Net Gain On Reacquired Debt.

According to the testimony of Mr. Huff, the Company will realize an amortized gain on reacquired debt of approximately $67,000 during the test year. Tr. 884, 957. The Company has recorded this amount as non-utility income, below the line. Consequently, the benefit of this financial gain flows to Met-Ed's common stockholders, not to its ratepayers. OCA submits that the Company's rate case treatment of this gain is incorrect.

The gain occurs because Met-Ed has purchased some of its bonds for retirement on the capital market at rates below face value. By reacquiring some of its debt instruments at less than their face value, Met-Ed relieves itself of the obligation to pay the face value at maturity and, as a result, realizes a gain equal to the difference between the face value and the price at which it reacquires the bond.

Met-Ed's customers have provided the revenues to pay the interest on the bonds which the Company has reacquired. Furthermore, as new financing is required and new issues are floated, the ratepayers will be supporting the higher effective cost of these new issues. Consequently, it is Mr. McAloon's testimony that any benefits arising from the retirement of bonds should accrue to Met-Ed's ratepayers. OCA Statement 2-A, §II, pp. 49-50.

In its last filed rate case, docketed at R.I.D. 434, the Company did not deduct the value of reacquired debt from measures of value. Nor was the amortized gain on reacquired debt treated as an adjustment to operating expenses. Both of these issues were raised by the Consumer Advocate and decided in its favor by the Presiding

Administrative Law Judges. In the PUC's final Order, entered September 18, 1978, the Commission ruled that both the suggested adjustment to measures of value and the corresponding adjustment to operating expenses were proper and appropriate. Pa. P.U.C. et al. v. Metropolitan Edison Company, R.I.D. 434, mimeo at pp. 9, 26, (September 18, 1978). Furthermore, the Commission recently accorded similar treatment of reacquired debt to Met-Ed's sister company, in Pa. P.U.C. et al. v. Pennsylvania Electric Company, R.I.D. 392, (June 28, 1978).

As mentioned earlier in I. L. of this Brief, in this proceeding the Company, complying with part of the Commission's Order in R.I.D. 434, has reduced its measures of value to reflect the value of reacquired debt. Nevertheless, consistent with his overall approach to this case, Mr. Madan found that the proposed value of Met-Ed's rate base deduction had to be modified to reflect the use of average instead of year end rate base values and the substitution of actual investment levels for budgeted figures. (OCA Statement 2-A, §I, p. 29, Schedule RB-9). Performing these adjustments, yields a $1,134,000 reduction in measures of value.

While it has adjusted its rate base, Met-Ed has neglected to make the corresponding adjustment to its test year operating expenses to reflect the amortization of their gain on this reacquired debt. Consistent with the recent decisions of this Commission, OCA submits that Met-Ed's test year operating expenses must be reduced by $67,000.

I. Met-Ed's Depreciation Claim Is Improper Since It Is Computed On A Remaining Lives Basis And Also Fails To Recognize A 40 Year Depreciable Life For Nuclear Facilities

In its most recent rate case, RID 434, Met-Ed put forth an

expense claim for an annual allowance of $216,000 for the amortization of $5,770,000--the amount by which the Company's theoretical reserve for depreciation, as calculated by Mr. Garland, exceeded its book reserve for depreciation at the end of the historical test year in that case. Met-Ed proposed to amortize this alleged book reserve deficiency over the still existing lives of the facilities that had been judged to have accumulated insufficient reserves. Commission approval of this amortization proposal, in conjunction with Met-Ed's prospective readjustment of accrual rates to reflect their latest estimates of in service lives, would have permitted Met-Ed to make up for the lower prior rates of accrual and, in effect, enable it to 'catch up' to where it would have been had its newest accrual rates always been in effect.

Without the approval of such an amoritization, Met-Ed could have, nevertheless, readjusted its depreciation accrual rates prospectively to reflect its most recent estimate of in service lives of property. Such an approach is called the "average whole life" approach. As a result, from the time of the change in accrual rates, the Company is able to accrue depreciation at the most current, and presumably most accurate rate. However, it is unable to recover any 'deficiency' that may have existed at the time of the change. In contrast, the approval of an amortization of the book reserve deficiency would have guaranteed Met-Ed the recovery of its entire capital investment in a given unit of property by the time that property was retired.

In the initial decision of the ALJ's in RID 434, the Company's above described proposed amortization of book reserve deficiency was rejected. In the subsequent final order in RID 434, the Commission adopted this aspect of the initial decision. Pa PUC et. al v. Metropolitan Edison Co., RID 434, mimeo at 11, (September 18, 1978).

In the instant proceeding, Met-Ed has not proposed to resolve a discrepancy between its book and theoretical depreciation reserves by amortizing the difference, if any, between these amounts. In fact, based upon Mr. Garland's most recent analysis of service lives, it appears that there is an insignificant $10,000 discrepancy, at this point in time, between Met-Ed's book reserve accruals and theoretical reserve accruals. Compare Met-Ed Exh. OI-10 p. 4 col. 2 with OI-10 p. 7 col. 2. Nevertheless, Mr. Garland is now recommending the acceptance of a "remaining lives" approach that would resolve the identical issue that the amortization approach, used in RID 434, sought to address. See Met-Ed State. I p. 20 and Exh. B-2, §G-2, p. 21. Both approaches are attempts to correct what Mr. Garland considers to be the fundamental weakness of the Commission's present "average whole life" policy.

> The essential difference between a true remaining life type calculation and a whole-life generation arrangement procedure... is that upon every rederivation of accrual rates at subsequent points in time, there is no recognition in whole-life procedures of the inevitable differences which occur because of retirement experience varying in actuality from that which had been previously predicted... Only a true remaining life technique will recognize such inevitable differences and act to compensate for their occurrence. Met-Ed Statement I p. 14.
>
> . . . . .
>
> The average whole life method of computing accruals as used by many utilities and, as has been required by the Pa. Commission, consists of the application of a currently derived average service life which takes into account present thoughts and expectations regarding the future course of plant retirements from present plant investments... The fact of the matter is, that upon periodic re-evaluations and rederivations of such average lives, there is no adjustment mechanism in the subsequent application of the rederived average lives to

> gross average depreciable plant for any residual differences which have developed... a remaining life method compensates for such differences-and does this over estimated remaining life periods. Id. pp. 16-17.

The Commonwealth Court, in Pennsylvania Power & Light Company v. Pennsylvania Public Utility Commission, 10 Pa. Cmwlth. Ct. 328, 311 A.2d 151 (1973), has stated the rigorous test that must be applied when a utility or a consumer seeks, through rate case recognition, to make-up for a discrepancy (be it an excess or a defieiency) between book depreciation reserve and the theoretical reserve. OCA submits that the following applies with equal force whether it is proposed that the possible discrepancy be resolved by an amoritization of a book reserve deficiency (as in RID 434) or by the adoption of a remaining lives approach to current depreciation expenses.

> Where there is an excess or deficiency in the book reserve as disclosed by the reserve requirement study, the burden of proof is on the consumer or public utility respectively, to establish that such excess or deficiency is 'genuine'; i.e., (a) where there is an excess, that the ratepayers have contributed to the capital investment of the utility's rate base through excessive payments of annual depreciation over the period when the excess was developed, or (b) where a deficiency, that the public utility has not received revenues sufficient to pay all of its operating expenses together with a fair return on its rate base during the years when the deficiency was created. Id. 311 A.2d 151 at 158.

In view of this standard, in RID 434, it was incumbent upon Met-Ed to demonstrate that, in the years in which the alleged deficiency was being created, it was prevented from earning the authorized rate of return. Logically, if Met-Ed's annual depreciation accrual was too low in any year in which it earned in excess of its authorized rate of return, then the excess in earnings constituted a de facto recovery of

capital and would, thus, have to be offset against any alleged deficiency in depreciation accrual for that year. Furthermore, in calculating its rate of return in a year of supposed under-accrual, Met-Ed would also have to take into account the fact that, due to the under-accrual the depreciation reserve was likewise understated, and as a result, it was earning a return on an overstated rate base.

Based upon the record in RID 434, the ALJ's found that Met-Ed had failed to prove the 'genuineness' of the asserted book reserve deficiency. As noted earlier, the Commission agreed with [illegible]'s finding and thus disallowed Met-Ed $216,000 amortization claim.

Even had Met-Ed been able to prove the 'genuineness' of the deficiency in RID 434, OCA submits that other equitable considerations would nevertheless, still militate against permitting retroactive rate recognition of the deficiency. It is Met-Ed management's obligation to redo its depreciation studies on a timely basis. To the extent that Met-Ed failed to readjust its depreciation accrual rates in a more timely response to more accurate estimates of in service lives, there is a serious question of whether the financial consequences of this failure should be borne by Met-Ed's stockholders, as opposed to its present and future ratepayers. The basic injustice of shifting the burdens of past errors onto present and future ratepayers was recognized recently in RID 392, where this Commission rejected an attempt by the Pennsylvania Electric Company to amortize a book reserve deficiency.

> It clearly seems inequitable to shift onto present and future ratepayers a burden which should have been borne by past ratepayers. Assuming the company's new depreciation accrual rates are as accurate as possible, these ratepayers will be paying their fair share of

> Penelec's depreciation costs and should not be burdened with making up the obligations of past customers. Pa. PUC et. al v. Pennsylvania Electric Co., RID 392, mimeo at p. 21, (June 28, 1978).

The same legal, equitable and practical problems that were obstacles to Met-Ed's attempt to amortize a book reserve deficiency in RID 434, must be considered present in the instant case where Met-Ed proposes the adoption of a "remaining lives" approach to depreciation expense. The 'genuineness' of the small discrepancy identified and adjusted for in Met-Ed's "remaining lives" approach has not been supported by any evidence in this record. Furthermore, the danger of making present and future ratepayers potentially liable for the consequential costs of making Met-Ed whole for inaccuracies of its own depreciation studies would become a reality.

The fact that, at this particular moment in the history of Met-Ed, the adoption of a 'remaining lives' approach would have a mimimal expense effect could have the effect of lulling the protectors of the public interest to sleep. OCA strongly urges the Commission not to disregard this possible Trojan Horse! Once the 'remaining lives' depreciation approach is adopted without, at a minimum, a clear showing of genuineness, the path to future sizable expense adjustments to make Met-Ed whole for past (or present) inaccuracies in accural rates is made easy.

OCA submits that the adoption of the instant 'remaining lives' approach, based upon the record in this case, would constitute a radical change in present Commission policy. It would be highly preferable for the Commission to address this important issue--whose dollar impact in this case is minimal--in a generic proceeding.

Therefore, OCA respectfully suggests that the ALJ should require Met-Ed to continue to utilize the average whole life approach to depreciation expense. Consistent with the recommendation of Mr. McAloon, the ALJ should, consequently, increase (subject to the further offsetting adjustment discussed below) Met-Ed's claimed depreciation expense by $10,000. OCA Statement 2-A, §II p. 50.

Furthermore, as pointed out in the title of this subsection, Met-Ed's claimed depreciation expense does not recognize the 40 year depreciable life of nuclear facilities. As explained in detail in §I.D. of this brief, OCA urges the Commission to adopt the 40 year life recommendations set forth by the PUC's expert staff witnesses. If this recommendation is adopted, Met-Ed's above modified depreciation expense claim would have to be reduced by $738,000. The derivation of this adjustment is set forth in Appendix 9 of this brief.

Therefore, in consideration of both the above recommended adjustments, OCA submits that Met-Ed's initially filed depreciation expense claim must be reduced by $728,000.

J. Met-Ed's Decommissioning Expense Claim Of $683,000 For TMI-1 Is Contrary To The Most Recent Decisions Of This Commission And Must Be Reduced To $90,000.

In its last rate case, Met-Ed based its decommissioning expense claim on the estimated cost inherent in the "in place entombment" method. In R.I.D. 434, Met-Ed requested a test year expense of $620,000 based upon its share of the $37.2 million estimated decommission cost for TMI-1 spread over the 31 years remaining on its operating license.

In its final Order, the PUC permitted Met-Ed the recovery of an annual expense of $132,000 for TMI-1 based on the entombment method and the Company's 1977 dollar cost estimates of its proportionate share. Pa. P.U.C. et al. v. Metropolitan Edison Co. RID 434 (1978) mimeo pp. 21-25, (Sept. 18, 1978). The Commission concluded that $13.6 million of the $37.2 million was related to the dismantling of non-nuclear structures which pose no special treat to the health and safety of Met-Ed customers. These non-nuclear related expenses were held to constitute prospective negative salvage which may not be recovered, according to Penn Sheraton Hotel, et al., v. Pa. P.U.C., 198 Pa. Super 618 (1962). Thus, it was concluded that the annual expense allowance should be only sufficient to accumulate the $23.6 million viewed as necessary to contain the nuclear components.

Furthermore, Met-Ed's calculation of their allowance for decommissioning was found to be improper. Met-Ed's assumption that inflation will continue for the next 30 years was rejected and consequently, the PUC held that the interest earned on these funds should not be permitted as an offset to inflation. Instead, the PUC made no provision for inflation but provided for a periodic adjustment in the annual allowance to account for any experienced inflation.

The Company's estimate of $25.9 million for TMI-1 in the present case, is $2.3 million greater than their RID 434 claim. Tr. 1259-1260, Met-Ed Exh. E-17. According to Mr. Arnold, this difference represents an adjustment for inflation experienced between 1977 and 1978. Tr. 1261.

The decommissioning expense approach described above was also adopted by the PUC in a slightly earlier decision involving Met-Ed's

sister company in Pa. P.U.C. v. Pennsylvania Electric Company, RID ̦92, mimeo at pp. 22-25, (June 28, 1978)

Despite these two extremely recent and precise statements of Commission wisdom regarding decommissioning, Met-Ed's approach to this issue here is vitually identical to the method they advocated in RID 434. The Company has claimed a $683,000 expense for TMI-1 and a $616,000 expense for TMI-2. Met-Ed Exh. B-2 § G-2, pp. 23, 37.

Mr. Huff has testified that if one calculated decommissioning in accordance with the PUC Order in RID 434, using the expiration dates on the operating licenses as the remaining lives, TMI-1 annual expense would become $145,000, TMI-2 would be $127,000. Tr. 949, 950. Using these calculations, Mr. McAloon has recommen that Met-Ed's claims for TMI-1 & 2 decommissioning be reduced to these amounts to reflect the methodology established in R.I.D. 434. OCA Statement 2-A § II pp. 51, 60. Mr. McAloon has also testified that if the Commission decided to change the depreciation life of these nuclear facilities, it would be necessary to adjust his decommissioning expense recommendations accordingly. Tr. 1774-1775.

OCA has reviewed the testimony of Dr. Donald Birx and Dr. N.S. Parate, presented by the PUC's trial staff regarding the depreciation life of TMI-1 & 2 and finds it to be persuasive. Trial Staff Statement No. 2 pp. 8-10, and Statement No. 5-A pp. 7-11. As discussed in section I. D. above, OCA recommends that the Commission adopt a 40 year life for these plants. The consequently longer remaining lives of TMI-1 & 2 should, therefore, be used as the relevant period in recalculating decommissioning expense. The use of a 40 year life is a conservative compromise between the Company's approach that uses remaining license

life and Staff's testimony which indicates a minimum of 50-60 years as the design life of these plants.

Using the same technique employed by Mr. Huff above (see Tr. 949, 950), and substituting 36 years as the remaining life of TMI-1 and 40 years for TMI-2, further reduces the annual decommissioning expense recommendation of Mr. McAloon by $55,000 for TMI-1 and by $60,000 for TMI-2. See Appendices 11 and 17 of this brief.

OCA supports the principle set forth in the prior Met-Ed rate case and considers it to be a proper balance between the need to plan for and fund the decommissioning of nuclear portions of generating stations and the treatment of classic prospective negative salvage. Thus, we urge the Commission, taking recognition of the 40 year life of the nuclear facilities, to reduce Met-Ed's claim to $90,000 for TMI-1 and $67,000 for TMI-2.

K. Met-Ed's Claim For Taxes Other Than Income Taxes Must Be Reduced By $1,372,000.

The Company has made an adjusted test year expense claim for Taxes Other Than Income Taxes of $11,532,000. The Consumer Advocate has recommended the reduction of this claim to $10,160,000, in order to reflect 4 distinct adjustments. (See OCA Statement 2-A §II p. 52 and Sched. OI-6).

To be consistent with OCA's recommendations to eliminate the expenses associated with monthly meter reading as well as those payroll expenses associated with the Company's use of a normalized year end level of employees, as already fully discussed in Sections V. A. & D. of this brief, Mr. McAloon has recommended expense claim reductions of $35,000 and $23,000 respectively. See OCA Statement 2-A, Sched. OI-6 p. 2 & Met-Ed Exh. B-2 §G-2 p. 24.

Additionally, consistent with his recommended adjustments to revenues, explained in Section V. B. above, Mr. McAloon has reduced Taxes Other Than Income Taxes by $41,000 to properly reflect the corresponding decrease in gross receipts tax liability. See OCA Statement 2-A, Sched. OI-6 p. 4.

Finally, but most importantly, Mr. McAloon recommends a $1,273,000 reduction in the Company's capital stock tax claim.

Met-Ed's claimed capital stock tax liability is $5,623,000 for the future test year. Met-Ed Exh. B-2 §G-2 p. 27. Yet, in October of this year, Met-Ed filed a 1977 capital stock tax return in which it estimated its liability at $3.5 million. Met-Ed Exh. B-62-1 p. 2. A review of the record in this case reveals no evidentiary basis for the Company's estimate that their capital stock tax liability will reach or even approach the claimed $5.6 million level -- a level which would constitute an eventual tax liability 61% higher than their most recently filed return! In contrast, if one looks to Met-Ed's recent experience with their 1976 capital stock tax, it reveals that the settlement liability exceeded the filed estimated tax return by 38%. Met-Ed Exh. B-62-2. When asked for an explanation of this substantial rate case expense claim, Mr. Huff responded:

> It is only our estimate of what we might be charged. We have no way of knowing what the settlement is going to be. Tr. 945.

Furthermore, a review of the Company's balance sheet for March 31, 1978 and 1977 reveals that the value of its total proprietary capital, upon which this tax is based, grew by only .2% between these two dates. Met-Ed Exh. B-2 § F, p. 2. Based upon the testimony of the various

other Met-Ed witnesses in this case, there is no reason to expect any significant growth in the value of the Company's proprietary capital during the test year in this case.

Even if it could be demonstrated that the ultimately determined capital stock tax liability will be considerably in excess of the $3.5 million claimed in Met-Ed's 1977 tax filing, it would be inappropriate to approve rate case claim based upon that higher anticipated amount. Tr. 1779-1780. The record shows that during the last two years, capital stock returns have adhered to the following pattern: the calendar year's filing is made in October of the next year, final settlement is concluded in December of the following year -- 14 months later! See Met-Ed Exh. B-62, B-62-1, & B-62-2. In this case, Met-Ed will not incur any further expenses for 1977's capital stock tax, above the $3.5 million estimate filed in October of 1978, until December of 1979 (Tr. 2329), fully eight months beyond the end of the Company's chosen future test year. In the absence of other, more concrete, evidence of higher actual capital stock tax expenditures, Met-Ed's October 1978 filing of 1977's estimated tax represents the best indicator of actual capital stock tax expenditures during the test year.

Mr. McAloon has offered direct testimony upon this adjustment and his calculations are fully explained on Schedule OI-6 p. 3. To avoid confusion, it should be noted that while the difference between the Company's $5.6 million and OCA's $3.5 million capital stock tax expense is $2.1 million, the recommended $1,273,000 adjustment reflects only the 60% of this tax that is recovered through base rates.

For all the above enumerated reasons, OCA submits that Met-Ed's claim for Taxes Other Than Income Taxes must be reduced by a total of $1,372,000.

L. The Company Has Understated Its Federal And State Income Tax Expenses.

Met-Ed in its initial filing, computed its state income tax expense as $2,536,000 and its federal income tax as $12,083,000 (both excluding TMI-2). Met-Ed Exh. B-2, §G-2 p. 29. In his direct testimony, Mr. McAloon computed Met-Ed's tax liability based upon all of his recommended adjustments to the Company's pro forma revenues and expenses. In anticipation of the then impending enactment of the Revenue Act of 1978, which was since signed into law on November 6, 1978, and which will be in place when the rates on this case are put into effect in March of 1979, Mr. McAloon used the new 46% corporate tax rate in his computations. OCA Statement 2-A §II p. 53. The calculations used to develop his recommended federal and state tax expense are developed fully on Schedule OI-7 of OCA Statement 2-A.

Of course, the final figures developed on Schedule OI-7 of Statement 2-A do not reflect those readjustments that resulted from the Company's wrap-up position or those that result from OCA's adoption of the Staff's recommendation regarding the 40 year life of TMI-1 and TMI-2. The recomputation of income tax liabilities based upon all the revenue and expense adjustments recommended by OCA this Brief results in a state tax expense of $2,992,000 and a federal expense of $14,230,000. The computations are set forth in Appendix of this Brief.

Therefore, consistent with the various revenue and expense adjustments suggested above, OCA recommends that Met-Ed's initially filed state income tax claim be increased by $456,000 and its federal income tax claim by $2,147,000.

M. Met-Ed's Provision For Deferred Income Taxes--Federal Must Be Reduced By $193,000 While Its Provision For Deferred Income Taxes--State Should Be Increased By $21,000.

In the Company's initial filing, its adjusted provision for deferred federal income taxes (net) was $5,118,000 while its provision for deferred state income taxes (net) was $720,000. Met-Ed Exh. B-2, § G-2, p. 1. Both of these calculated provisions for deferred taxes principally consist of the Company's normalization of the tax effects of its use of liberalized depreciation and its unamortized balance of deferred energy costs. Id. at p. 30. In his pre-filed direct testimony, Mr. McAloon proposed a $213,000 reduction to Met-Ed's provision for deferred federal income taxes in order to reflect the new 46% corporate tax rate. OCA Statement 2-A, §II, p. 53. The calculation of this adjustment is outlined on Schedule OI-8 of OCA Statement 2-A. Initially, OCA had proposed no adjustment to Met-Ed's provision for state deferred income taxes.

As described in detail in Section V. F. of this Brief, OCA is recommending an adjustment, to Met-Ed's expense claim for the amortization of deferred energy costs, that reflects both Met-Ed's revised deferred energy balance, filed in its wrap-up (see Met-Ed Exh. B-144, p. 6) as well as OCA's suggested ten-year amortization period of the related expense. Furthermore, as described in Sections V. I. and T. and I. D., OCA is also recommending the adoption of a forty-year depreciation life for TMI-1 & 2.

Consistency dictates that Met-Ed's claimed provisions for federal and state deferred income taxes must be altered to reflect the tax consequences resulting from the two above-mentioned adjustments.

The use of a forty-year depreciation life for TMI-1 results in a reduction of accelerated depreciation expense; therefore, the provision for deferred taxes associated with accelerated depreciation decreases as well. The changes resulting from OCA's revised deferred energy recommendation yields an increase in Met-Ed's total provision for deferred taxes.

In terms of the federal deferred income tax claim, the net effect of the above-described refinements is the reduction of Mr. McAloon's originally proposed $213,000 adjustment to $193,000.

Similarly, the state deferred tax impact of OCA's forty-year depreciation life adjustment nearly offsets the dollar impact of the revised deferred energy balance claim. The net effect of these refinements is a $21,000 increase in Met-Ed's state deferred income tax requirement.

Therefore, OCA submits that Met-Ed's claimed provision for federal deferred income taxes should be reduced to $4,925,000 while Met-Ed's claimed provision for state deferred income taxes should be increased slightly to $741,000. The derivations of these adjustments are set forth in Appendixes 12 and 13 of this Brief.

N. Met-Ed's Pro Forma Income Statement Must Be Adjusted To Reflect A $378,000 Increase In The Company's Net Income (After Taxes) Due To GPU Double Leverage.

In deriving its rate case claim for federal tax expense, Met-Ed has quite properly recognized the reduction in income tax liability that arises because its parent holding company (GPU) has purchased equity in Met-Ed and its other operating subsidiaries with funds obtained through its issuance of $50 million in long-term debt.

See Met-Ed Exh. B-2, §G-2 p. 29 line 30 and B-13. The Company accomplishes the appropriate tax recognition of the above transaction by treating Met-Ed's apportioned share of GPU's interest cost associated with this borrowing as a deduction to taxable income. In this fashion, Met-Ed's consolidated tax adjustment to its federal income tax expense correctly credits Met-Ed ratepayers with their proper share of GPU's interest expenses incurred to support this issue of debt.

However, while properly recognizing the related interest expense of this transaction for federal tax purposes, Met-Ed's filing does not, in any fashion whatsoever, reflect the actual reduction in financing cost to Met-Ed associated with this double leverage transaction.

Mr. McAloon described the consequence of this technique in his direct testimony.

> The ratepayer is being asked to provide to GPU an equity return of 12.1% (after taxes) on these funds, but GPU's actual cost for these funds is only 8.63%. Ratepayers should be required to pay only the actual cost that GPU has to pay for these funds. OCA Statement 2-A §II, p. 54.

Accordingly, it is Mr. McAloon's recommendation that Met-Ed's net income after taxes be increased by the difference between the earnings on borrowed funds at the common equity rate and what the earnings would be on these funds if priced at their actual cost to GPU. Mr. McAloon's calculations are set forth on Schedule OI-9 of OCA Statement 2-A and result in a recommended increase in net income after taxes of $378,000.

Mr. McAloon's computation is based upon the assumption that the Commission will find that the appropriate common equity return on

original cost for Met-Ed to be 12.1%, as recommended by Dr. Marcus. See OCA Statement 1. If the PUC finds the appropriate rate of return to be greater than this figure, the proposed adjustment to eliminate any excess earnings due to double leverage would have to be revised upward using the same methodology described in Schedule OI-9.

The issue of savings associated with GPU double leverage was raised by OCA in the most recent Met-Ed rate case and was decided in our favor by the PUC in its final Order. Pa. P.U.C. et. al v. Metropolitan Edison Company, R.I.D. 434, mimeo pp. 27-28, (September 18, 1978). Despite a decision on a virtually identical set of facts, Met-Ed has chosen not to modify its claims in the instant proceeding to reflect an explicit statement of Commission opinion on this matter. As the Commission explained:

> We agree with the position of the Consumer Advocate. Our authorized rate of return is sufficient to cover the contractually determined interest on debt, dividends on preferred stock and a common shareholder return of 13.6% on original cost. A portion of Met-Ed's equity, however, is actually financed by debt issued by GPU. Since the common stock of respondent is wholly owned by GPU, when GPU issued its debentures. . . part of the proceeds. . . were allocated to Met-Ed. Since Met-Ed issues its own debt and preferred and GPU is its only stockholder, the allocated funds are included in the capital structure as common equity. These funds should earn. . . their actual cost, rather than the common equity return. . . Id., at p. 28.

Finally, it must be pointed out that while the Commission's decision in R.I.D. 434 adopted the OCA position that an adjustment to net income would have to be made to reflect these double leverage savings, the Commission erroneously concluded that the consolidated tax

savings adjustment offered by the Company should be netted out of this adjustment. As we have attempted to demonstrate above, the tax recognition of GPU related interest expense is a separate and distinct adjustment. The Company has, in its claim, properly recognized the tax consequences to Met-Ed of the GPU debt However, it has, in no way, given any recognition to the bonus that must result for Met-Ed's sole common stockholder, GPU, if Met-Ed is given the opportunity to earn more than the cost that was necessarily incurred to attract this particular source of equity. OCA respectfully submits that that portion of the Commission's Order in R.I.D. 434 indicates a lack of understanding of the manner which a consolidated tax savings adjustment is separate from the recognition of savings associated with GPU double leverage.

OCA submits that Met-Ed's consolidated tax treatment of GPU debt related interest expense is correct (except as modified in Section V. L. above to reflect the new 46% tax rate) but that, nevertheless, an additional adjustment to net income after taxes of $378,000 must be made to Met-Ed's income statement to reflect operating expense savings due to double leverage.

O. <u>Met-Ed Has Failed To Take Recognition Of The Reduction In Its Deferred Tax Liability Resulting From The Recent Reduction In The Federal Corporate Tax Rate And Its Pro Forma Income (After Taxes) Must Be Adjusted To Reflect A $165,000 Increase In Net Utility Operating Income.</u>

The Company's deferred income taxes that have accumulated to date--the great bulk of which relate to accelerated depreciation (see Met-Ed Exh. B-2, §C-2, p. 18)--have been calculated and amassed on the assumption that a 48% federal corporate tax rate would be in effect when these deferred taxes must actually be paid to the Federal Government.

With the President's November 6, 1978 signing of the Revenue Act of 1978, Met-Ed's actual deferred tax liability, beginning in 1979, will be computed on the basis of the new, lower, 46% corporate tax rate.

Mr. McAloon has offered direct testimony in this regard and has computed the resulting reduction in Met-Ed's overall deferred tax liability balance, as of December 31, 1978, to be $1,653,000. OCA Statement 2-A, §II, p. 54, Schedule RB-10, p. 5. Consistent with Met-Ed's proposed ten-year amortization of IRS refunds (see Met-Ed Exh. B-2, §G-2, p. 32) and OCA's above-recommended ten-year amortization period for deferred energy costs (see §V. F. above), OCA respectfully submits that this $1,653,000 reduction in Met-Ed's deferred tax liability must be amortized into income over a ten-year period. Consequently, Met-Ed's pro forma net utility operating income must be increased by $165,000.

In the course of his December 7 presentation of rebuttal testimony, Mr. Huff stated his opinion that IRS tax regulation §1.167(1)-(h) would prohibit any reduction of the accumulated deferred income tax account as a result of the recent reduction of the federal corporate tax rate. See Met-Ed Exh. B-145 and Tr. 2310-2311. Met-Ed would have the Commission conclude, therefore, that Mr. McAloon's proposed amortization of the reduction in actual deferred taxes would be barred by IRS regulations.

Mr. McAloon presented surrebuttal testimony on this specific point:

> Yes, based on a careful reading of that paragraph of the IRS regulations, it does state that deferred income taxes, deferred income tax balances would not be reduced by reason of changes in different methods of depreciation. It goes on further to state that deferred

> income tax balances could be reduced because of retirements or expiration of the period of depreciation used. It does not address the impact or what would be the effect of a change in depreciation or change in tax rates as what we are addressing here, the change from the 48 to 46% rate.
>
> This change in tax rates is a relatively infrequent occurrence. And it's my understanding that the IRS regulations have not been written to really address this type of infrequent occurrence.
>
> Consequently, it's my opinion that this regulation does not prohibit the company from reducing its deferred income tax balance to reflect the 46% tax rate that they will have to pay in the future. Tr. 2924-2925.

OCA submits that Mr. McAloon's interpretation of the above-cited regulation is both logical and correct. The regulation expressly addresses, and was written to clarify, the consequences of changes in depreciation methodology and asset lives. Furthermore, there is no logical reason why the IRS would wish to establish a policy that permits a utility to accumulate more money than is necessary to pay its actual deferred tax obligations.

Met-Ed's suggestion that this regulation was somehow written so as to anticipate the tax liability consequences that might arise <u>if</u> the federal corporate tax were changed by subsequent legislation is pure, self-serving speculation. To conclude that this regulation was designed to address such a totally atypical situation, requires Met-Ed to reach beyond the clear scope of this regulation.

P. <u>Met-Ed's State Income Tax Savings Associated With Accelerated Depreciation Must Be Flowed Through To Its Customers And Consequently Its Pro Forma Income After Taxes Must Be Adjusted To Reflect A $935,000 Increase In Net Utility Operating Income</u>.

The net income reflected in a utility's financial statements for rate making purposes is not the same as the net income used by that utility in the calculation of Federal & State income tax expense. A principle source of this disparity lies in the difference between the method used to compute depreciation expenses for financial reporting and regulatory purposes and that used to compute depreciation expense for income tax purposes.

Federal tax law permits a utility, like Met-Ed, to depreciate its plant at a higher rate in the early life of the asset, which consequently decreases its actual income tax expenses during that period. Conversely, at a later point in the life of the asset, the depreciation rate and depreciation expense will be lower, resulting in a higher tax liability. The rate making treatment that passes through the actual tax savings, as they are experienced by a utility, to the present ratepayers is called the "flow-through" method.

Using an alternative approach, Met-Ed, with the relatively recent consent of this Commission, has been normalizing such tax expenditures. Pa. P.U.C., et. al. v. Metropolitan Edison Company, 46 PUC 239, 274 (1972). Under "normalization", tax depreciation expense and resulting tax benefits remain constant over the life of the asset. As a result, the tax expense that present customers are required to bear are higher than the Company's actual present tax payments.

However, the use of normalization in the real world does not necessarily reduce future ratepayer's tax liabilities. Since utilities like Met-Ed continue to acquire new property and to utilize accelerated depreciation for these additions, the day when the utility will actually have to pay the higher taxes is extended further and further into the future.

In the intervening time, putting aside all euphemisms, use of tax normalization allows Met-Ed to obtain capital from its customers in excess of its current actual tax payments. This coerced capital is thus available to aid the utility in financing new plant construction or for other corporate purposes. It is the view of OCA that a regulatory policy that requires such forced capital contributions from ratepayers is outmoded, unnecessary and improper, and that the savings in State taxes associated with accelerated depreciation must be flowed through to Met-Ed's present customers.*

The continuing deferral feature of the normalization approach, in effect, forces current ratepayers to make capital contributions to the utility. Met-Ed's stockholders, not its customers, are responsible for providing the capital required to render utility service. The consumers obligation is to pay for the cost of all service they receive, this cost includes a return of and a return on the investor supplied capital. Customers should not be required to make capital contributions except to avoid discriminatory situations such as those dealt with by requiring individual contributions in aid of construction or advances.

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* To avoid confusion, it must be noted that since Federal law requires Met-Ed to normalize its Federal tax savings, arising from use of accelerated depreciation, in order avail itself of this provision, OCA is not recommending the flow-through of the federal tax portion of these tax savings.

Furthermore, even in the long run--over a complete plant life cycle--the ultimate deductions from rate base of the accumulated deferred income tax balances is an inadequate compensation to consumers for the use of their money. Rate base is reduced by the average balance of accumulated deferred income taxes and the impact on Met-Ed's rates is the product of the reduction in rate base and the allowable rate of return. The latter represents the cost of capital to the utility and not the cost of capital to consumers. Because the cost of capital to consumers, particularly consumers in residential and commercial categories, is generally greater than the cost of capital to a large public utility, it is unlikely that the rate base deduction will adequately compensate consumers.

Most recently, in the initial decision of the Administrative Law Judge in the Philadelphia Electric rate case, ALJ Joseph Matuschak addressed the general policy issue of "normalization" v. "flow-through" as follows.

> Under traditional regulatory concepts, utility company shareholders (investors), not the consumers, furnish the capital necessary for the operation of the business. In effect, normalization, however, provides customer-provided interest-free loans to the utility. It coerces capital from captive customers. We consider it improper to allow normalization except: (1) upon evidence that the saved taxes will in fact be paid within the reasonably forseeable future; or (2) where normalization is required by law in order to obtain the benefits of accelerated depreciation; or (3) where normalization is grounded on serious cash-flow or other problems.
>
> A general policy of permitting normalization of such tax savings may have been appropriate in the past as an encouragement to electric utilities to substantially expand

> their plant investment to meet a projected critical shortage in production facilities, at a time when the overall impact upon the consumers was not significant. But now such policy must be examined in the light of present day circumstances since such normalization, in combination with many other factors, is causing an excessive burden to ratepayers. Moreover, the incentive for emergency expansion of plant construction is no longer required.
>
> Subject to the above exceptions, flow-through of such tax savings is consistent with the sound, long-standing principle of reflecting in rates an allowance for a cost that is not greater than the cost actually and prudently incurred by the utility. When rates are established on the basis of an allowance for income taxes which is greater than the income tax liability that would be imposed on the Company under pro forma conditions used in rate determination, there is a mismatch between the cost actually incurred by the Company and the associated charges concurrently imposed on ratepayers. To say that such normalization increases the pre-tax interest coverage of the Company is no answer. The same could be said of the allowance of excessive rates. Re Midstate Telephone Co.,Inc., 10 PUR 4th 88, 93-4(1975); Re New York State Electric & Gas Corp., 14 NYPSC 564, 570 (1974); Iowa Power & Light Co., 20 PUR 4th 397 (1977); Montana Dakota Utilities Co., 21 PUR 4th (1977).

Pa. PUC et. al. v. Philadelphia Electric Co., RID 438, ALJ Initial Decision of Nov. 15, 1978, mimeo pp. 118-119.

Applying the above three-part test to the facts presented in the Philadelphia Electric case, ALJ Matuschak concluded that there was no basis to continue the normalization treatment of state taxes associated with accelerated depreciation. Id. p. 121. OCA submits that if the same test is applied to the evidence presented in the instant case, there is, likewise, no reason to continue normalization treatment for Met-Ed.

First, there is no indication that saved taxes will have to be paid in the reasonably forseeable future. As an electric utility replaces and expands utility plant, they are able to charge accelerated depreciation on their new investments. As long as a utility is continuing to expand and its rate base is increasing, it will continue to increase the amount of taxes it is deferring. There is no evidence in the record to indicate that Met-Ed (1) is not growing, (2) is not replacing older assets, (3) is not investing in additional assets to serve an expanding customer base. Consequently, Met-Ed will continue to have an increasing net balance of accumulated deferred income taxes, and thus will not have to pay the "saved taxes" in the foreseeable future.

Second, as ALJ Matushak wrote:

> the Commission clearly has the right and power to limit state income tax expenses charged to customers to the amount of state taxes actually paid. Federal law does not prohibit flow-through ratemaking. It states that if flow-through ratemaking is mandated then the Internal Revenue Service will deny the Company the right to use accelerated depreciation for tax purposes. The Commission is free to take this step if it sees fit. Obviously, since federal law does not prohibit flow-through ratemaking vis-a-vis federal taxes, state law cannot be said, by analogy, to prohibit flow-through rate-making vis-a-vis state income taxes.
>
> Because the Commission understood that the benefits of accelerated depreciation would be denied the ratepayer were it to require flow-through, it approved the normalization method in its June 24, 1970 statement of Policy. See Pa. PUC v. Metropolitan Edison Co., 4th PUC 239, 274 (1972). In our opinion the flow-through of the effect of accelerated depreciation on state income taxes will not jeopardize the Company's ability to continue accelerated depreciation for state or federal income tax purposes. Thus, the underlying rationale for the Statement of Policy has no force as it concerns state income taxes.

Pa. PUC et. al, v. Philadelphia Electric Co., R.I.D. 438, ALJ Initial Decision of Nov. 15, 1978, mimeo at p. 120.

Third, flow-through of these tax benefits to current ratepayers will not present any serious cash-flow problems to Met-Ed. In fact, given the level of rate relief being recommended by OCA in this case, during the next few years Met-Ed's ability to generate funds internally will improve significantly. See Met-Ed Exh. K-9, and OCA State. 2-A §II p.55.

Furthermore, as Mr. McAloon noted in his direct testimony, there is an additional equitable consideration present that would favor the "flow-through" of these accelerated depreciation benefits to Met-Ed's present ratepayers.

> In the past, Met-Ed customers have been required to pay higher rates because the Company has been permitted to normalize. In this case the Company is asking ratepayers to support normalization and in addition to support the Company's investment in the TMI-2 generating station. With the addition of TMI-2 to rate base, Met-Ed is asking its ratepayers to support generating capacity substantially in excess of the Company's current requirements.

OCA State. 2-A §11 p. 55, see also Tr. 1775-17,7. The rate making recognition of the State tax savings associated with accelerated depreciation will help to offset the adverse financial impact that Met-Ed's current excess capacity will have upon current ratepayers.

Furthermore, it must be noted that present ratepayers are burdened with the higher carrying costs associated with a largely undepreciated 'new' plant. Flow-through of the tax benefits associated with 'new' plant, therefore, works as a counter-balancing factor, tending to equalize the cost of the plant between present and future ratepayers.

It is instructive to review the discussion of this same issue as it has been articulated in a recent decision by the Maine PUC.

> The staff also proposes to flow through the tax benefits of accelerated depreciation under Maine state income tax law. This entails including as an expense only the state income taxes actually paid. The Company proposed to include as an expense the difference between the amount of state income taxes it actually paid and the amount it would have paid had it not used accelerated depreciation in computing taxable income. Reported operating expenses include those income taxes that are paid currently as well as those that are deferred.
>
> Two questions are presented. First, can the Commission legally adopt Mr. Louiselle's adjustment and second, should the Commission adopt it. As concerns the first question, we clearly have the power to limit state income tax expenses charged to customers to the amount of state income taxes actually paid. The Company argues that federal tax law prohibits use of flow-through rate making for federal income taxes and that state law, because it adopts federal taxable income, has the same effect concerning state taxes.
>
> In fact, federal tax law does not prohibit flow-through rate making. It states that if flow-through rate making is mandated then the Internal Revenue Service will deny the Company the right to use accelerated depreciation for tax purposes. The Commission is free to take this step if it sees fit. Obviously, since federal law does not prohibit flow-through rate making vis-a-vis federal taxes, state law cannot be said, by analogy, to prohibit flow-through rate making vis-a-vis state income taxes.
>
> As stated in our statement of policy dated July 1, 1970, the Commission had consistently required the use of flow-through accounting for utilities using accelerated depreciation for income tax purposes. However, because we believed that the benefits of accelerated depreciation would be denied the ratepayer were we to continue to require flow-through, we approved the normalization method in the 1970 statement of policy.

It is our opinion that the flow-through of the effects of accelerated depreciation on state income taxes will not jeopardize the Company's ability to continue accelerated depreciation for state or federal tax purposes. Thus, the underlying rationale for the statement of policy has no force as it concerns state income taxes.

Mr. Louiselle explained that the use of accelerated depreciation clearly results in a tax savings and not a tax deferral provided that depreciable plant continues to grow, and he provided data showing that over the past twenty-five years plant has grown at an annual compound rate of 8 1/2 percent.

This Commission considered this issue in depth in our Docket F.C. No. 1498, Re Central Maine Power Co. (Me 1957) 17 PUR3d 452. In requiring flow-through we stated (17 PUR3d at p. 452):

"We ourselves are convinced too, that these taxes should not be normalized in a rate proceeding and that a company can be allowed for operating expenses only its actual taxes paid.

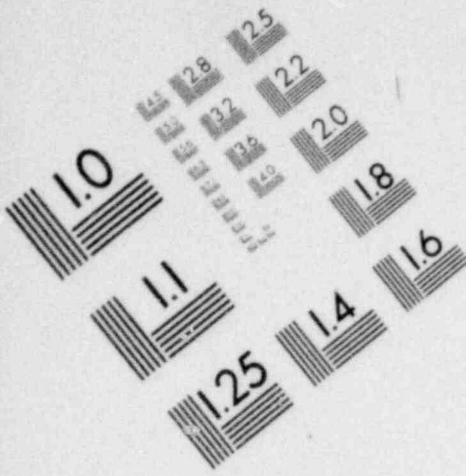
"The Maine statute provides the rates should be 'just and reasonable' and that the utility is entitled to a 'fair return.' Revised Statutes Chap 44, Nos. 17, 18. We can find no indication in the statute and cannot reasonably interpret that in determining such a return the utility shall be allowed to set up as an expense a hypothetical tax which it does not actually pay.

"Were we to permit the Company to normalize taxes, it would thereby be permitted to collect funds from its consumers for capital purposes. Certainly it is the function of the public to pay the operating expenses of the utility and to give it a fair return on its investment. But the public should not be expected to provide contributions of capital through rates."

Re New England Tel. and Tel. Co., 13 PUR 4th 65, 84-85 (1976) See also

Re Gulf States Utilities Co., 13 PUR 4th 65, 84-85 (1976)) See also

Re Gulf States Utilities Co., 20 PUR 4th 147, 152-4 (La. 1977).



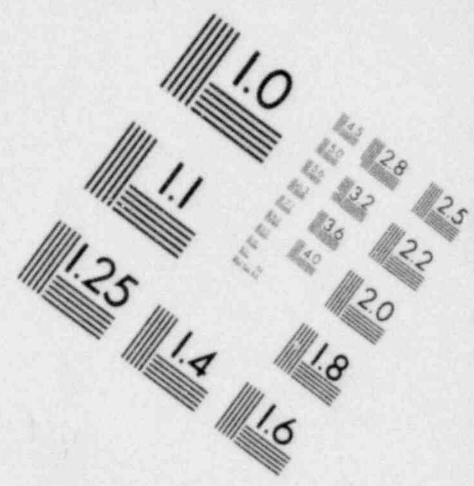
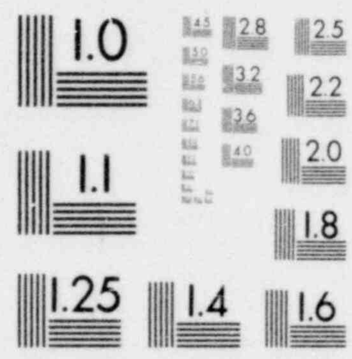
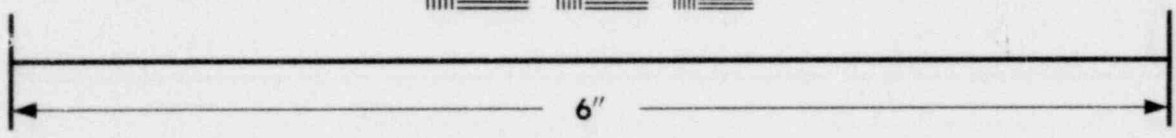
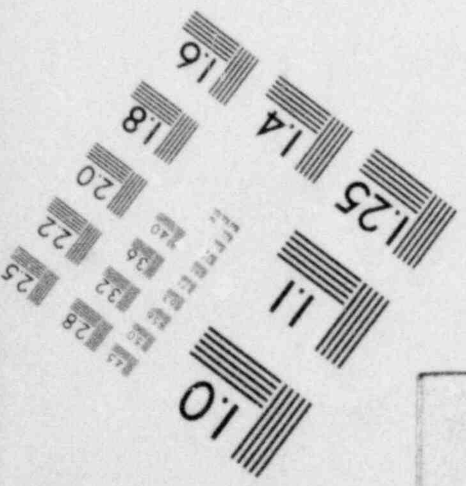


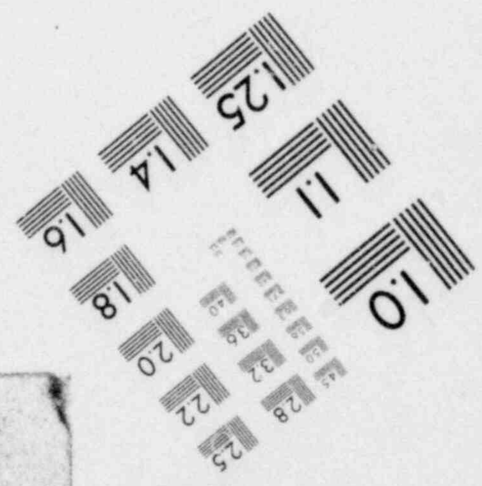
IMAGE EVALUATION
TEST TARGET (MT-3)

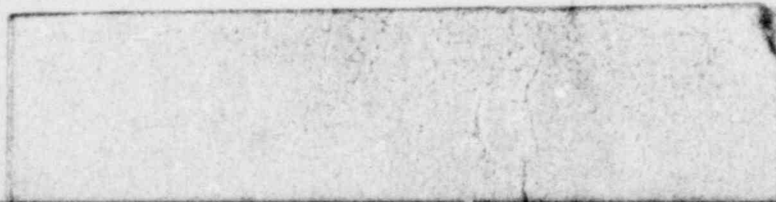




MICROCOPY RESOLUTION TEST CHART







Testifying on behalf of OCA, Mr. McAloon has recommended that the PUC re-adopt a flow-through approach for state tax savings associated with accelerated depreciation for Met-Ed, at this point in time. Tr. 1777-1778. His rationale is set forth on pages 55&56 of OCA Statement 2-A and resulted in his initial calculation of a $1,385,000 increase in net income (after taxes). See OCA Schedule RB-10 p. 1, line 5 and Met-Ed Exhibit B-103, p. 2 column 10, line 11 minus line 20.

This initial calculation has been subsequently modified to reflect two matters. First, the initial calculation did not reflect the $402,000 increase in Met-Ed's pro forma Federal income tax expense which must necessarily result from a reduction in State tax expense that consequently increases income subject to Federal taxation. See Appendix 14 of this brief. Second, consistent with OCA's adoption of the PUC's 40 year depreciable life recommendation for nuclear facilities, depreciation expense must be decreased and thus taxable income and taxes increase slightly from this adjustment ($42,000). The net effect of the two above refinements is to reduce Mr. McAloon's original adjustment to net income to $935,000. See Appendix 14 of this brief.

Finally, it must be noted that on December 28, 1978, the PUC decided the Philadelphia Electric case cited above. From the discussion and vote at public session on that day, it appears the Commission has adopted the views expressed by ALJ Matuschak regarding flow-through of State taxes. A final written order has not yet been entered. Therefore, for all the above stated reasons, and consistent with the Commission's apparent and recent change of policy on this matter, OCA respectfully requests that Met-Ed's net utility operating income be increased by $935,000, so as to flow-through these tax benefits to its present ratepayers.

Q. Met-Ed's Income Tax Savings Resulting From Interest Deductions Associated With Construction Work In Progress Must Be Flowed Through To Its Customers And Consequently Its Pro Forma Income After Taxes Must Be Adjusted To Reflect A $810,000 Increase In Net Utility Operating Income.

The issue of tax normalization versus flow-through is present whenever an income or expense item is recognized at different times for tax accounting purposes and for financial, ratemaking purposes. Similar to the question presented by accelerated depreciation, addressed in the preceeding sec . all interest expenses associated with construction may be deducted immediately for tax purposes but may be capitalized and amortized over the life of the property for ratemaking purposes. The important ratemaking considerations discussed in detail in the preceeding section apply with equal force and relevance to the instant issue of how Met-Ed's federal tax savings associated with interest paid or debt used to finance CWIP should be treated in this rate case.

Presently, for federal tax purposes, Met-Ed claims all interest ex enses associated with CWIP, as they accrue, as a deduction to net income before taxes. See Met-Ed Exh. B-2, §G-2, p. 29. As a result, the Company's Net Income Before Taxes is reduced and thus, its federal tax expense is reduced.

For ratemaking purposes however, Met-Ed's federal tax expense claim has been normalized upward to remove the effect of this actual, present tax benefit. Instead, Met-Ed treats the CWIP portion of tax savings as an offset to the interest during construction charges (AFDC) that are ultimately capitalized. This normalization has the effect of raising rates for present consumers beyond actual present cost levels

and benefitting future ratepayers through a reduced ultimate plant investment value and lower depreciation expense when the given plant goes into service.

Consistent with its views expressed in section V-P above, OCA submits that equitable regulatory policy dictates that actual tax benefits resulting from the treatment of interest associated with CWIP, for Met-Ed, should no longer be normalized and henceforth, should be flowed-through to its present ratepayers. To accomplish this result, Mr. McAloon, testifying on behalf of OCA, has recommended that Met-Ed's net utility operating income must be increased by $810,000.* See OCA Statement 2-A §II p. 57, Schedule OI-10, Summary Schedule 3.

Met-Ed's normalization treatment of this tax benefit was first permitted by the PUC only a few years ago. The Commission's rationale for altering its previously long-standing policy of flow-through of the CWIP tax benefit was first set forth in an August 17, 1973 decision of the PUC in a Philadelphia Electric rate case.

<u>Income Tax Credit Applicable to Interest Associated with Construction Work in Progress</u>.

> Respondent claims an increase in taxes of $8,455,000 to normalize the tax savings associated with interest paid on debt used to finance construction work in progress (CWIP).

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* In the interest of clarity, it should be noted that Mr. McAloon's direct testimony (p. 57) mistakenly states that a <u>reduction</u> to Met-Ed's net operating income is required to affect this flow-through adjustment. This statement is a drafting error; if one looks at the supporting schedule OI-10 and summary schedule 3, it is clear that the proposed adjustment actually consists of an increase to Met-Ed's pro forma net operating income. The nature of this adjustment can also be inferred if one reviews Mr. McAloon's cross-examination (see especially Tr. 1777-1777A).

These tax savings, respondent contends, improperly flow to the present ratepayers, who do not provide a return on construction work in progress. When plant construction is placed in service, a rate of return can be earned on all the construction costs, including interest during construction charges incurred while the plant was under construction. Respondent recognizes the interest during construction charges by capitalizing them and crediting "allowance for funds used during construction," according to the prescribed systems of accounts. Within this allowance, there is a debt interest component which is a deduction for income tax purposes and consequently gives rise to a tax savings. Respondent states that the CWIP portion of the tax savings should be treated as an offset to the interest during construction charges capitalized. This will be of benefit to ratepayers when the plant goes into service.

Respondent proposes to rectify what it considers to be an inequitable situation by claiming a tax expense of $8,455,000, equivalent to the CWIP tax saving, and the higher revenues required to offset it of $17,479,000. The amount credited to "allowance for funds used during construction" would then be reflected through the IDC (interest during construction) rate.

Respondent submits data and testimony for the record to substantiate its claim for the normalization of tax savings associated with interest paid on debt used to finance construction work in progress. Since 1961, CWIP has risen from 1.4 percent of net plant to 13.3 percent in 1966, and 25.0 percent in 1971. Respondent states related tax savings have increased from $123,000 in 1961 to $1,350,000 in 1966, and to $7,548,000 in 1971.

Industrial complainants and GSA contend that respondent's claim would result in hypothetical taxes of varying amounts from year to year.

It is our opinion that allowable taxes should be normalized for the tax savings associated with interest paid on debt used to finance construction work in progress. However, the

> rate for allowance for funds used during construction as a charge to construction work in progress must be judiciously determined and recalculated periodically as ordered in the conclusion section of this order.

Pa. P.U.C. v. Philadelphia Electric Co. 1 PUR 4th 417, 454-5 (1973).

It is the position of the Consumer Advocate that the normalized treatment of the tax deduction of interest associated with CWIP must be ended, because the rationale for this treatment simply does not apply to today's circumstances. It should be pointed out that the decision to allow Philadelphia Electric to normalize these tax expenses was an ad hoc one, not made in a generic proceeding. Subsequently, other companies, such as Met-Ed, requested and were granted similar treatment after this treatment was, for the first time, afforded PE. However, other companies in Pennsylvania, including Bell Telephone Co., have continued to flow-through these benefits. Whatever may be the rationale for continuing to allow this treatment for other companies, the Commission can and should reconsider the wisdom of its continued applicability to Met-Ed.

There are several reasons why the Commission's relatively recent decision to not give current customers the tax benefit of all the interest expenses the Company is presently incurring, where there is no federal rule requiring such treatment, is unsound and should be reversed.

First, Met-Ed's present treatment of this matter violates a fundamental ratemaking principle. As ALJ Matuschak wrote in his most recent Philadelphia Electric Decision:

> When rates are established on the basis of an allowance for income taxes which is greater than the income tax liability.... there is a mismatch between the cost actually incurred by

> the Company and the associated charges concurrently imposed on ratepayers.

Pa. P.U.C. et. al v. Philadelphia Electric Co., RID 438, ALJ's Initial Decision of Nov. 15, 1978, mimeo p. 119.

Second, the justification for departing from the above principles, as set forth in the 1973 Philadelphia Electric Decision cited is both simplistic and inaccurate. It presumes that the Commission can piecemeal fairly allocate expenses between present and future customers. This is an impossible proposition, as the New York Public Service Commission has clearly recognized.

> Examiner Vernieu computed Midstate's federal income tax deductions for interest charges on the basis of the company's pro forma average test-year capitalization. On exceptions, the company argues that the examiner's computation improperly reflects debt expenses which finance construction work in progress (CWIP). Midstate contends that, since its customers pay rates based only on the company's rate base, they should not receive the tax advantages associated with CWIP debt expenses which place no burden upon them.
>
> A similar argument was rejected by the commission in Re New York State Electric & Gas Corp. (1974) 14 NY PSC 564, 570. Nevertheless, we admit that there is some force to the logic of Midstate's proposal to identify income tax savings to the projects which give rise to those savings. By the same logic, however, we should not charge present customers the higher costs of capital associated with the utility's need to expand capacity to meet future demand; yet we do. See, for example, Re Long Island Lighting Co. (1975) 15 NY PSC-, 9 PUR 4th 21, Opinion No. 75-1.
>
> If our established tax policy exaggerates the cost of future facilities, in future years our policy will provide tax savings offsets to those higher costs. On the other hand, if we change our policy now and identify certain tax savings with future facilities, present utility rates will rise without any assurance that

> future utility rates will be lower than under our present policies. And we will be overcharging present customers because of the past error of failing to identify past income tax savings with the facilities now in service. Accordingly, we reject Midstate's proposal that income tax savings associated with CWIP debt expenses be disregarded for ratemaking purposes. Our decision is without prejudice to more precise cost calculations wherever particular rates are to be based on incremental costs.

Re Midstate Telephone Co., Inc., 10 PUR 4th 88, 93-4 (1975).

Third, the normalization effected here is unjust. Whatever benefits that may accrue to future ratepayers by virtue of the reduction in AFDC accomplished by this adjustment is more than outweighted by the unfairness of requiring present ratepayers to make payments to Met-Ed far in excess of the amount required to meet current tax payments which, in effect, results in large sums of zero cost capital being made available to Met-Ed. Furthermore, in the case of the interest associated with CWIP it must be emphasized that the presumably compensating effect of a deduction from rate base is not an immediate event; it is deferred until the given plant actually becomes operational.

As we discussed at some length in the preceeding section of this brief (VP), ALJ Matuschak's recent decision in the Philadelphia Electric case enunciated a three part test to be used in determining when the use of "flow-through" should held to be inappropriate. While ALJ Matuschak rejected OCA's recommended "flow-through" treatment for the tax benefits associated with CWIP interest, it is absolutely clear that his conclusion was based solely upon his view of the reasonableness of such an adjustment for that company, at that time. See Pa. P.U.C.

et al v. Philadelphia Electric Co., RID 438 ALJ's Initial Decision of Nov. 15, 1978, mimeo p. 125.

It is highly relevant to note that the application of "flow-through" to CWIP interest in that case would have had a $54 million revenue impact! Id. at 122. A review of that portion of his initial decision, which has since been adopted by the full Commission, reveals that the ALJ had come to the conclusion that the "flow-through" of these tax benefits would cause serious and severe financial troubles for Philadelphia Electric. Id. at pp. 121-125.

If the Commission chooses to apply the "flow-through" principles enunciated by ALJ Matuschak to the facts presented in the instant Met-Ed case, it is apparent that Met-Ed's normalization of these tax benefits must now cease.

First, as was the case with accelerated depreciation flow-through, there is no reason to believe that the Company's balance of saved taxes or deferred taxes will not continue to increase in the reasonably forseeable future.

Second, rate case normalization of these benefits is not required by law. Many utilities around the United States, including Bell of Pennsylvania, are presently "flowing-through" these CWIP related tax benefits to their present consumers. Our research has identified several. New York, See Midstate Telephone Co., Inc., 10 PUR 4th 88, cited supra; South Dakota, Montana Dakota Utilities Co., 21 PUR 4th 1, 11-14 (1977); Iowa, Iowa Power and Light Co., 20 PUR 4th 397, 406-408 (1977); Montana, see, e.g., Montana Power Co., Docket No. 6454 (April 24, 1978); Rhode Island, Narragansett Electric Co., Docket No. 1288 (April 10, 1978), pp. 39-42.

Third, there is no evidence that the continued normalization treatment of these benefits by Met-Ed can be grounded upon serious cash-flow or other financial problems. Unlike the situation presented in the most recent Philadelphia Electric case, the revenue impact of this adjustment will be less than $2 million. Furthermore, given the level of rate relief being recommended by OCA in this case, during the next several years, Met-Ed's ability to generate funds internally will improve significantly. See Met-Ed Exh. K-9 and OCA Statement 2-A §II p. 57. The evidence in this case also indicates that Met-Ed's pre-tax interest coverage will improve, even if this adjustment is made. See Met-Ed Exh. K-8.

Finally, as we stated in section P above, and as Mr. McAloon has testified, the "flow-through" of these tax benefits would help to mitigate the adverse financial impact of Met-Ed's current excess capacity upon current ratepayers. See OCA Statement 2-A, §II, p. 57.

On behalf of OCA, Mr. McAloon has testified that the PUC should re-adopt a "flow-through" approach for federal tax savings resulting from interest associated with CWIP, as it is appropriate for Met-Ed at this point in time. OCA Statement 2-A, §II, p. 57 and Tr. 1777-1778. It should be noted that in computing this adjustment, Mr. McAloon used the level of savings that Met-Ed will realize in <u>1979</u> because he believed this level of savings would be more representative of the savings Met-Ed will realize when the new rates are put into effect. The basis of his calculation is set forth on Schedule OI-10 of OCA Statement 2-A.

Given all the above considerations, including Met-Ed financial health and the apparent change in Commission policy as enunciated in the

recent Philadelphia Electric case, Pennsylvania should take this opportunity to return to its sound prior practice and permit the "flow-through" of these tax savings to Met-Ed's ratepayers. To accomplish this result, OCA respectfully requests that Met-Ed's net utility operating income be increased by $810,000.

R. Met-Ed's Pro Forma Net Operating Income After Taxes Must Be Reduced By $690,000 To Reflect Actual Data.

Consistent with his and Mr. Madan's stated opinions concerning proper future test year methodology, Mr. McAloon has calculated the after-tax result of the variance between Met-Ed's claimed pro forma net operating income based on budgeted data and actual results as available. See OCA Statement 2-A §I pp. 7-8, §II pp. 44, 58.

The Company's claim in this case is based upon budgeted data through March 31, 1979. In his pre-filed testimony and in his supporting schedule, Mr. McAloon recommended an adjustment to net utility operating income to reflect the recorded difference between budgeted and actual results as of August 31, 1978. The computation of this adjustment is set forth in detail in Schedule OI-11, pages one through five of OCA Statement 2-A and resulted in a recommended reduction of Met-Ed's pro forma operating income after taxes of $326,000.

At hearings held on December 7, Met-Ed submitted, as part of its wrap up, data depicting the actual results of its operations through October 31, 1978. Tr. 2304, Met-Ed Exhibit B 16-5. In reaching its final recommendation on this matter, OCA has revised Mr. McAloon's adjustment to reflect this most recent actual data. The results of using this new data are shown in Appendix 21 of this brief, which, in

effect, represents an update of Schedule OI-11 of the pre-filed testimony. OCA now recommends that, based upon budget verses actual variance as of October 31, 1978, pro forma net operating income after taxes must be reduced by $690,000.

S. TMI-2 Operations and Maintenance Expenses Must Be Reduced By A Minimum Of $6,094,000 So As To Reflect Only The Level Of These Expenses That Will Be Incurred In The Test Year

Consistent with Mr. Madan's recommended test year methodology for TMI-2, discussed above in section I-Q of this brief, Mr. McAloon has proposed a revenue and expense treatment that distinguishes between variable O&M expenses and "capital related expenses and taxes". See OCA State. 2-A, §11 pp. 58-60. Neither Mr. Madan nor Mr. McAloon has proposed to annualize TMI-2 revenues; therefore, it is recommended that TMI-2 variable O&M expenses be permitted 'as they will fall' in the test year. As discussed in §V-T below, it is recommended that the more known and certain, TMI-2 "capital related expenses and taxes" be adjusted to an annualized level.

Met-Ed's TMI-2 claim for O&M expenses is based upon the expense level it expects to experience when TMI-2 reaches maturity, currently estimated to occur in 1982. See Met-Ed Exh. B-2, §G-2 p. 35 and Exh. D-25. Consistent with the positions stated in section V-D & E regarding O&M expenses relating to TMI-1 at maturity, and in view of the even more pronounced departure from an appropriate test year methodology that such a "reach-out" for these TMI-2 expenses would entail, Mr. McAloon has testified that Met-Ed's proposed adjustment to reflect a mature level of TMI-2 O&M expenses would be inappropriate. OCA State. 2-A §II p. 59.

Instead, Mr. McAloon has suggested that to develop the proper calculation of expenses relating to TMI-2 O&M requires one must begin by looking to Met-Ed's budgeted TMI-2 payroll and other O&M expenses for the test year, which were based upon an originally anticipated nine months of commercial service at TMI-2. Using these figures as a starting point, Mr. McAloon then took cognizance of the fact that TMI-2 was expected to be in operation by early December and would thus only be in commerical operation for four months of the test year in this case. He, therefore, recommended that Met-Ed be permitted expense levels for variable O&M sufficient to support the four months of expected operations and, thus, reduced Met-Ed's actual budgeted TMI-2 payroll and other O&M claims by granting 4/9ths of these amounts. The development of these calculations are set forth on Schedule TMI-OI-1 & 2 of OCA Statement 2-A and yield a $2,458,000 reduction in Met-Ed's TMI-2 payroll O&M claim and $3,648,000 reduction in Met-Ed's other O&M claim.

As of the date of this writing, it appears that TMI-2's in service date has moved into January of 1979. This development means that Met-Eds actual variable O&M expenses, during the test year of this case, will now be limited to, at most, the last <u>three</u> months of the test year. Consistent with Mr. McAloon's above described recommendation, it now appears that it will be appropriate to further reduce the Company's O&M expense claim, once TMI-2 goes into service, to reflect a further decrease in test year O&M expenses arising from this later-in service date.

To avoid unnecessary confusion, it should be noted that while reserve capacity costs or credits are considered to be an element of Met-Ed's total O&M expense (see Met-Ed Exh. B-2, §G-2, p. 1 line 14),

Mr. McAloon has not proposed any adjustment to the company's claim. OCA Statement, 2-A, Schedule 4. Reserve capacity credits, like other capital-related costs, are known and certain. They will become effective immediately upon TMI-2's placement in commerical service and the ultimate magnitude of the pro-forma credit are not affected by this slippage of the in-service date or by the amount of electricity ultimately generated at the station. See Tr. 446. Therefore, Mr. McAloon is, in effect, considering this "O&M" item to be more of the nature of a "fixed" capital related expense, which he has testified should be annualized. See section VT of this brief.

Mr. McAloon has provided his rationale for his proposed treatment of the above TMI-2 expense items.*

> ...(1) the use of the forecasted test year offsets attrition and eliminates the need for making pro forma expense changes outside the test year, without showing that these expenses are clearly incremental to the entire system, (2) the Company has annualized expenses but has failed to annualize revenues. Mr. Hafer, in Exhibit K-8, indicates that Met-Ed's base revenues will increase by some $8 million in 1979 and $4 million in 1980. It is clear that much of the Company's claimed out of period TMI-2 expenses will be partially or completely offset by increases in revenues from growth in customers and growth in usage.
>
> If one were to annualize revenues for the test period consistent with the Company's annualization of expenses, substantial additional revenues could be imputed to the Company. I have chosen not to make such an adjustment. Likewise the Company's claim for a mature level of TMI-2 expenses is inappropriate.

---

* His recommended treatment is consistent with the treatment that this Commission has afforded to Homer City 3 in Pa. PUC v. Pennsylvania Electric et al., RID 392, (June 28, 1978). See discussion in Section IQ of this brief.

OCA Statement 2-A §II p. 59, see also Met-Ed Exh. K-8.

There is no evidence in this record that indicates that Met-Ed's claimed variable O&M expenses for TMI-2 are, in fact, incremental Rather it is clear that other expenses of Met-Ed will be reduced as a result of TMI-2's addition to the system. See Tr. 1782, Met-Ed Exh. B-2, §G-2, p. 33, also compare Met-Ed Exh. D-2, pp. 2-3 & D-3, pp. 2-3 with D-4, p. 2.

In view of the above considerations, OCA respectfully submits that Met-Ed's claim for TMI-2 O&M expense must be reduced by a minimum of $6,094,000.

T. <u>Met-Ed's Claimed TMI-2 Capital Related Expenses And Taxes Are Improper; Furthermore Its Total Pro Forma TMI-2 Income Must Be Adjusted To Reflect The Amortization Of Deferred Tax Benefits And State Tax Savings Associated With Accelerated Depreciation</u>.

In its initial filing Met-Ed claimed all TMI-2 related expenses at a normalized level. See Met-Ed Exh. B-2, §G-2, adjusts. #27-31. Apart from the payroll and other O&M expenses which have been given distinct treatment in section V-S, OCA agrees with Met-Ed and believes that Met-Ed's TMI-2 "capital related" expenses should be recognized at normalized levels for rate-making purposes. On behalf of OCA, Mr. McAloon has testified that, since TMI-2 represents such an extremely significant addition to Met-Ed's rate base and since these costs are relatively certain, a properly calculated level of "capital related" costs associated with this plant must be recognized in this rate proceeding. OCA State. 2-A, §IIp. 60. As stated earlier, it is for this reason that no adjustment is being made to Met-Ed's reserve capacity claim.

While OCA and Met-Ed are in general agreement regarding the normalized treatment of this set of expenses, OCA has, nevertheless, recommending various adjustments to the Company's originally filed normalization figures, through the direct testimony of Mr. McAloon. See Id., including Schedule 3 and Schedule TMI-OI-3.

Most notably, consistent with OCA's recommendations regarding decommissiong expense, set forth in detail in section V-J above, Mr. McAloon has reduced the TMI-2 decommissioning claim rather drastically. Such an adjustment is required if this Commission is to handle TMI-2 decommissioning in a manner consistent with their decisions of this year at RID 392 and RID 434.

In several instances, to arrive at OCA's final recommendations, Mr. McAloon's pre-filed direct testimony adjustments must be further modified in this brief to reflect (1) the delay of TMI-2 beyond the November 30, 1978 in-service date anticipated throughout OCA Statement 2-A and (2) OCA's acceptance of the TMI-2 40 year depreciable life recommendation set forth by PUC staff expert testimony. See section I-S&D of this brief.

As a consequence of the most recent delay of TMI-2's in-service date, AFC on nuclear fuel for TMI-2 has increased as has, in turn, the ultimate size of the investment tax credit. Furthermore, the larger value of electric plant in service initially increases related depreciation expense.

On the other hand OCA's adoption of a 40 year depreciable life for TMI-2 has several impacts on expenses. First, annual depreciation expense, both book and tax, must be reduced. Second, since the investment tax credit (ITC) must be amortized over a longer plant life,

the annual amortization of the ITC is reduced. Third, as explained in Section V-J, OCA's originally recommended decommissioning expense claim must be further reduced, since a longer period of years is available in which to create this fund.

As consequence of all the above listed changes in Met-Ed's TMI-2 "capital-related" expenses as well as those O&M adjustments proposed in §V-S above, a series of federal and state income tax adjustments must be made to the Company's TMI-2 related operating income claim. By taking all the above recommended expense adjustments and using the same format Met-Ed used in computing its TMI-2 tax expenses (see Met-Ed Exh. B-2, §G-2, p. 38), OCA has developed a new set of TMI-2 tax figures (utilizing the new 46% tax rate) which should be viewed as an update of Schedule TMI-OI-4 as initially presented with OCA Statement 2-A. This recalculation of Met-Ed's TMI-2 related tax expenses is set forth in Appendix 16 of this brief.

Furthermore, consistent with the adjustment, set forth above in section V-O of the brief, to amortize the deferred tax reduction exclusive of TMI-2, Mr. McAloon has proposed that $25,000 be added to Met-Ed's TMI-2 net utility operating income to give recognition to a ten year amoritization of the deferred tax r duction associated with TMI-2. See OCA State. 2-A, Schedule 4. This adjustment has been developed on the assumption that TMI-2 would be in commercial service by the end of November, 1978, resulting in an associated deferred tax reduction of $253,000. See OCA State. 2-A Schedule TMI-RB-3 p. 3 and TMI-RB-5.

Finally, consistent with the adjustment, explained and recommended in section V-P of this brief, to flow-through the State tax benefits associated with accelerated depreciation exclusive of TMI-2,

OCA submits that $1,045,000 must be added to Met-Ed's TMI-2 net utility operating income.

Mr. McAloon has testified in favor of such an adjustment at page 61 of OCA Statement 2-A where he recommends a $1,823,000 adjustment to net utility operating income. Consistent with our position as stated in section V-P, OCA has modified Mr. McAloon's initial adjustment to reflect (1) the impact of a 40 year depreciable life which must decrease the amount of accelerated depreciation and (2) the impact of the consequential reduction in state tax expense upon Federal taxable income and Federal tax expense. The recalculation of this adjustment is set forth in Appendix 20 of this brief.

For the convenience of the Presiding ALJ and the Commission, OCA has prepared summary schedule detailing the above recommended TMI-2 expense and tax adjustments in a format that is similar to that originally presented as OCA Statement 2-A, Summary Schedule 4. This schedule is labelled "Consumer Advocate Wrap-Up Position-Schedule 4," and is set forth in the Annex to this brief.

VI. RATE STRUCTURE AND COST OF SERVICE

Rate structure and cost of service issues occupied a considerable portion of the hearing time and attention of all parties actively involved in this rate case. Direct and rebuttal testimony regarding these issues was presented by Mr. Eugene Carter on behalf of Met-Ed. Dr. Melvin Bloom presented direct and rebuttal testimony on rate structure issues on behalf of the Commission's Trial Staff. Dr. Robert J. Rohr, of the Economics Department at Brown University, presented direct testimony on both cost of service and rate design issues on behalf of the Office of Consumer Advocate. OCA Statement 3.

After the conclusion of formal evidentiary hearings in this case, all active parties were able to agree upon and sign a stipulation regarding the various cost of service and rate design issues that had been raised. As is the case in all negotiated agreements, the stipulation required a degree of compromise by each party. Nevertheless, significant positive steps were attained by all.

To illustrate this point, from the viewpoint of the residential class as a whole, it is clear that significant progress has been made. For example, in order to resolve the various cost of service issues in dispute, it has been agreed by all parties that the ultimate rate increase permitted shall be spread across all service classifications on an equal base rate percentage basis, except that special consideration shall be given to street-lighting customers <u>and</u> that $4.3 million shall be shifted from the residential rate classifications to the general service classifications. In the event that the retail rate increase awarded is below $40 million, this revenue shift will be scaled down.

Furthermore, all residential declining blocks have been eliminated (with the sole exception of electric space heating customers who will receive this benefit until the conclusion of Met-Ed's next rate case) and have been replaced with a rate consisting of a customer charge of $5.75--considerably lower than that which the company had proposed--and flat usage charges.

Finally, the agreement provides for a well publicized program promoting the company's time of day and off-peak residential rates. These rates will be of special significance to electric heating customers who will be soon notified that the special rates they are on shall be eliminated in Met-Ed's next filing. It is hoped that these time sensitive rates will provide these customers with a real opportunity to adjust their usage patterns so as to take maximum advantage of the lower cost of electricity in off-peak periods.

The above illustrated pattern of give and take applies to all represented parties. Furthermore, due regard was given for the interests of those parties not formally represented.

The parties to the stipulation has also agreed that the views taken for the purposes of reaching this stipulation, are taken completely without prejudice. All rights of the various parties to argue their positions have thus been preserved for the next case.

In view of all the above, OCA respectfully requests that the stipulation be approved by the Presiding Administrative Law Judge and submitted to the Commission as a part of his recommended decision in this case.

VII JURISDICTIONAL REVENUE ALLOWANCE

As set forth and supported in all of the preceeding sections of this brief, the Office of Consumer Advocate is recommending that Met-Ed be permitted a maximum of $38,649,000 in additional overall revenues in this case. The development of this overall recommended result is set forth in OCA's "wrap-up" position, which, along with various supporting appendices is attached to this brief.

Furthermore, as described in this section, OCA respectfully submits that Met-Ed should be permitted to allocate no more than $33,122,000, or 85.7%, of the gross amount herein recommended, to their PUC jurisdictional customers.

In the present case, as in its last case (R.I.D. 434), Met-Ed's filing did not separate jurisdictional data from total company data. The latter, of course, includes sales to cooperatives and some municipal utilities. In this case, the Company, according to Met-Ed Exh. C-1, p. 2, is proposing to file rates that would produce $87.2 million in total additional revenues, of which the retail jurisdictional amount would be $81.6 million or 93.5%. The Company has offered no explanation of the derivation of these figures, the implication being that this 93.5% ratio would be applicable to all levels of relief and mixtures of approved rate base and expenses. OCA submits that Met-Ed has failed to sustain its burden of proof regarding this conversion and that the Commission should order Met-Ed to file its next rate case on a jurisdictional basis solely.

Mr. Madan, on behalf of the OCA, has endeavored to develop a proper methodology for deriving and allocating rate relief to Pa. PUC jurisdictional customers. Mr. Madan explained his approach, in his direct testimony, as follows:

Q. Would you explain how you determined how much of the Company's total additional revenue requirement should be allocated to those customers whose rates are regulated by the Pennsylvania Public Utility Commission?

A. After I had determined the Company's overall revenue requirement based on my recommendations, Mr. McAloon's recommendations and Dr. Marcus's recommendations (OCA Statement 2-A, Schedule 1, Col. 12, line 7), I calculated the net utility operating income that would be generated from non-PUC jurisdictional customers if sales to these customers resulted in a return on rate base similiar to what the Consumer Advocate has recommended in this case. I then added this amount to pro forma operating income. By adjusting pro forma income by this amount, I have reflected non jurisdictional sales at the recommended revenue level. The remaining revenue requirement, which is shown in Schedule 1, Column 15, line 7 (of OCA Statement 2-A), should be attributed to Pennsylvania retail customers and their rates should be adjusted accordingly.

Q. Could you explain the methodology you used in determining the amount of this pro forma income adjustment?

A. Yes, The Company (Exhibit C-3, cost of service study) has allocated revenues, expenses and rate base items between the Pa. PUC and the FERC customers. Based on the Company's data and our recommended adjustments to rate base and pro forma income, I have adjusted the Company's FERC jurisdictional rate base and pro forma revenues and expenses to reflect our recommended adjustments. This is illustrated on Schedules OI-12, p. 3 & p. 4. Then, using the overall rate of return recommended by Dr. Marcus I have determined what the non jurisdictional net operating income requirement would be to provide a return comparable to our recommended jurisdictional rate of return (Schedule OI-12, p. 1).

See OCA Statement 2-A §I pp. 10-11, revised Schedule OI 12 (OCA Exh. #3), and Summary Schedule 1.

The above approach, which is, in effect, based upon Met-Ed's own cost of service data, has not been challenged by the Company in the course of these proceedings. Furthermore, despite the presentation of various rebuttal witnesses by Met-Ed, no evidence has been offered to refute this methodology.

Utilizing the same approach set forth by Mr. Madan, OCA has prepared Appendix 22 of this brief. Appendix 22 consists of a recalculation of the proper percentage relationship between jurisdictional and total system revenue requirements, as readjusted by the various final recommendations proposed by the Consumer Advocate in this brief. All the data necessary in the development of this appendix, which is basically a 'wrap-up' version of OI-12 or OCA Exh. #3, were supplied either by Met-Ed or witnesses of the Consumer Advocate.

The resulting relationship of jurisdictional to total Company revenue requirements is 85.7%. The same technique can be applied to any adjusted rate base. If a higher level of rate relief is awarded, OCA suggests that the increase in the ratio be proportionate to the difference between the finally allowed original cost rate base and that recommended by Mr. Madan, computed at the allowable overall rate of return.

Applying this 85.7% figure to our overall recommendation of $38,649,000 yields a jurisdictional requirement of $33,122,000. OCA respectfully urges, therefore, that the Commission direct Met-Ed to file revised tariffs, designed to raise a maximum of $33,122,000 in additional base revenues from its retail customers. These revised

tariffs should conform with the terms of the rate structure and cost of service stipulation, executed by all the active parties in this case and discussed above in Section VI of this brief.

VIII CONCLUSION

The Consumer Advocate respectfully requests the Administrative Law Judge in the proceeding at R-78060626 to order the Respondent to file a new tariff supplement reflecting the revenue requirement and rate structure recommendations set forth herein.

Respectfully submitted,

David M. Barasch
Assistant Consumer Advocate

Barbara L. Smith
Assistant Consumer Advocate

Mark P. Widoff
Consumer Advocate

Dated: January 10, 1979

ANNEX A

The following documents are contained in this annex to the Main Brief of the Office of Consumer Advocate in Docket No. R-7860626:

1. OCA Wrap-Up Position (Schedules 1-4)

   This document was previously distributed to all active parties and the Presiding ALJ at hearings held on December 14, 1978. Tr. 2933.

2. OCA's annotated Index of Appendices 1-22.

3. OCA Appendices 1-22.

CONSUMER ADVOCATE WRAP-UP POSITION

SCHEDULE 1

METROPOLITAN EDISON COMPANY

Page 1

SUMMARY SCHEDULE

.EVENUE REQUIREMENTS

COMPANY POSITION VERSUS RECOMMENDED POSITION

($000's)

	Test Year Position		
Explanation (1)	Company Position (2)	Adjustment (3)	Recommended Position (4)
1) Rate base	$711,382 (A)	($ 23,168)	$688,214
2) Cost of capital	9.86% (D)	(.65%)	9.21%
3) Income requirements	70,142 (E)	(6,757)	63,385
4) Less pro forma income	60,772 (H)	6,706	67,478
5) Income deficiency	9,370 (K)	(13,463)	(4,093)
6) Revenue factor	2.1141 (L)	(.0827)	2.0314 (Q)
7) Additional revenue requirement	$ 19,809 (N)	($ 28,124)	($ 8,315)

(A) Source: Exhibit B-2, Section C-2, P.1, line 24, Column 4
(B) Source: Exhibit B-2, Section C-2, P.1, line 24, Column 5
(C) Source: Exhibit B-2, Section C-2, P.1, line 24, Column 6
(D) Source: Exhibit B-2, Section A, P.7
(E) Source: Exhibit B-2, Section G-2, P.1, Line 33, Column 4 & 5
(F) Source: Exhibit B-2, Section G-2, P.1, Line 33, Column 6
(G) Source: Exhibit B-2, Section G-2, P.1, Line 33, Column 8
(H) Source: Exhibit B-2, Section G-2, P.1, Line 33, Column 4
(I) Calculated: Line 3 - (Line 7 2.1141)
(J) Source: Line 4, Column (2) plus Column (6)
(K) Line 3 - Line 4
(L) Line 7 ÷ Line 5
(M) Used same factor calculated in Line 6, Column II
(N) Source: Exhibit B-2, Section G-2, Line 7, Column 5
(O) Source: Exhibit B-2, Section G-2, Line 7, Column 6
(P) Source: Exhibit B-2, Section G-2, Line 7, Column 8 - Column 4
(Q) Schedule 5

Source of Column (4) (5)	Company Position (6)	TMI #2 Position Adjustments (7)	Recommended Position (8)	Source of Column (8) (9)
Schedule 2	$339,407(B)	($ 22,868)	$316,539	Schedule 2
Dr. Marcus Testimony	x 9.86%	(.65%)	9.21%	Marcus testimony
Line 2 x Line 1	33,466(F)	(4,313)	29,153	Line 2 x Line 1
Schedule 4	1,575(I)	4,459	6,034	Schedule 4
Line 3 - Line 4	31,891(K)	(8,772)	23,119	Line 3 - Line 4
(Q)	2.1141(M)	(.0827)	2.0314	(Q)
Line 6 x Line 5	$ 67,420(O)	($ 20,456)	$ 46,964	Line 6 x Line 5

POOR ORIGINAL

Overall Position					
Company Postion (10)		Adjustments (11)	Recommended Position (12)	Source of Column (12)
$1,050,789	(C)	($ 46,036)	$1,004,753	Col. 4 + Col. 8
x 9.86%	(D)	(.65%)	9.21%	Marcus testimony
103,608	(G)	(11,070)	92,538	Line 2 x Line 1
62,347	(J)	11,165	73,512	Col. 4 x Col. 5
41,261	(K)	(22,235)	19,026	Line 3 - Line 4
2.1141	(M)	(.0827)	2.0314	(Q)
$ 87,229	(P)	($ 48,580)	$ 38,649	Line 6 x Line 5

CONSUMER ADVOCATE WRAP-UP POSITION

SCHEDULE 2

METROPOLITAN EDISON COMPANY
SUMMARY OF RATE BASE ADJUSTMENTS
TEST YEAR ENDING MARCH 31, 1979
($000)

	Base Position			TMI #2 Position			Overall Position		
Explanation (1)	Company Position(A) (2)	Adjustments (3)	Recommended Position (4)	Company Position(B) (6)	Adjustments (7)	Recommended Position (8)	Company Position(C) (10)	Adjustments (11)	Recommended Position (12)
Electric plant in service	$905,348	($ 17,707)	$887,641	$343,651	$11,306	$354,957	$1,248,999	($ 6,401)	$1,242,59
Electric plant held for future use	2,640	(1,471)	1,169				2,640	(1,471)	1,16
Total electric plant	907,988	(19,178)	888,810	343,651	11,306	354,957	1,251,639	(7,872)	1,243,76
Depreciation reserve - electric plant in service	210,757	(5,770)	204,987	5,993	3,901	9,894	216,750	(1,869)	214,881
Net electric plant	697,231	(13,408)	683,823	337,658	7,405	345,063	1,034,889	(6,003)	1,028,886
Nuclear fuel in the reactor - net of amortization	10,102		10,102	11,412		11,412	21,514		21,51
Nuclear fuel - spare assemblies	5,181	(567)	4,614				5,181	(567)	4,61
Net nuclear fuel	15,283	(567)	14,716	11,412		11,412	26,695	(567)	26,12
Total plant	712,514	(13,975)	698,539	349,070	7,405	356,475	1,061,584	(6,570)	1,055,01
Additions									
Coal inventories	10,771		10,771				10,771		10,77
Oil inventories	1,544		1,544	30		30	1,574		1,57
Other M&S inventories	10,746	(446)	10,300				10,746	(446)	10,30
Deferred energy costs	7,726	297	8,023	(6,702)	(258)	(6,960)	1,024	39	1,06
Deferred energy cost - unamortized	4,235	2,202	6,437				4,235	2,202	6,43
Unamortized storm damage	1,384	(710)	674				1,384	(710)	67
Unamortized rate case expense	586	(586)					586	(586)	
Cash working capital	13,076	(13,076)		1,503	(1,503)		14,579	(14,579)	
Total additions	50,068	(12,319)	37,749	(5,1[illegible]9)	(1,761)	(6,930)	44,899	(14,080)	30,81
Deductions									
Customer deposits	584		584				584		584
Customer advances for construction	672		672				672		672
Unamortized gain on acquired debt	930	204	1,134				930	204	1,134
Accumulated deferred income taxes (net)	47,199	(5,339)	41,860	4,494	7,126	11,620	51,693	1,787	53,480
Income tax refunds (net)	829	68	897				829	68	897
Operating reserves	986	371	1,357				986	371	1,357
Unamortized reserve for deferred tax benefit		1,570	1,570		228	228		1,798	1,798
Results of TMI-2 management audit					21,158	21,158		21,158	21,158
Total deductions	51,200	(3,126)	48,074	4,494	28,512	33,006	55,694	25,386	81,080
Rate base	$711,382	($ 23,168)	$688,214	$339,407	($22,868)	$316,539	$1,050,789	($46,036)	$1,004,753

Source:
(A) Exhibit B-2, Section C-2, p.1, Col.4
(B) Exhibit B-2, Section C-2, p.1, Col.5
(C) Exhibit B-2, Section C-2, p.1, Col.7

POOR ORIGINAL

PUC Jurisdictional		
Adjustments (14)	Recommended Postion (15)	Source of Column (15) (16)
$	$1,004,753	
	9.21%	
	92,538	
2,721	76,233	Schedule OI-12
	16,305	Line 3 - Line 4
	2.0314	
	$ 33,122	Line 5 x Line 6

CONSUMER ADVOCATE WRAP-UP POSITION

SCHEDULE 3

METROPOLITAN EDISON COMPANY
OPERATNG INCOME ISSUES -
SUMMARY OF INCOME ADJUSTMENTS - EXCLUDING TMI#2
TEST YEAR ENDING MARCH 31, 1979
($000)

Explanation (1)	Company Adjusted(A) (2)	Adjustments (3)	Recommended Position (4)
Total operating revenues	$278,380	($ 2,067)	$276,313
Toal energy expense	66,616	(1,263)	65,353
Coal and ash handling	1,772		1,772
Nuclear handling	30		30
Reserve capacity	5,782		5,782
Payroll - operations and maintenance	37,712	(3,727)	33,985
Other operations and maintenance	42,918	(1,195)	41,723
Amortization of deferred energy	1,820	(418)	1,402
Uranium development costs	243	(243)	
Amortization of gain on reacquired debt		(67)	(67)
Total operations and maintenance expense	156,893	(6,913)	149,980
Depreciation expense	25,413	(728)	24,685
Average net salvage	192		192
Decommissioning	683	(593)	90
Taxes other than income taxes	11,532	(1,372)	10,160
Income taxes - federal	12,083	2,147	14,230
Income taxes - state	2,536	456	2,992
Provision for deferred income taxes net - federal	5,118	(193)	4,925
Provision for deferred income taxes net - state	720	21	741
Investment tax credit adjustment, net	2,573		2,573
Income tax refund	(135)		(135)
Total expenses	217,608	(7,175)	210,433
Net utility operating income	60,772	5,108	65,880
Double leverage benefit		378	378
Amortization of deferred tax benefit		165	165
State tax flow through		935	935
Tax benefit on CWIP interest flow through		810	810
Budget versus actual to date		(690)	(690)
Total income	$ 60,772	$ 6,706	$ 67,478

Source: (A) Exhibit B-2, Section G-2, p.l., Col. 4

OCA
INDEX TO APPENDICES 1-22
(REVISIONS OF DIRECT TESTIMONY)
($000)

Appendix #	Area	Change: Reason	Change: Effect on Rate Base or Income
1.	Electric plant held for future use	- To change from 12 month to 13 month average	($ 14)
2.	Depreciation reserve excluding TMI-2	- To change from 12 month to 13 month average	700
		Budget vs. actual update 10/31/78	(890)
		- To eliminate TMI-1 ring girder from the reserve	362
		- To reflect change in TMI-1 depreciable life	3,501
3.	Other M & S inventories	- Budget vs. actual update 10/31/78	37
4.	Deferred energy costs - old clause	- To reflect the revised projected balance as of 4/30/79	2,259
5.	Accumulated deferred income taxes	- To reflect change in TMI-1 depreciable life	175
		- Budget vs. actual update 10/31/78	(4)
		- To reflect revised flow through impact	(450)
6.	TMI-2 depreciation reserve	- To reflect the change in TMI-2 depreciable life to 40 years	2,485
7.	TMI-2, accumulated deferred income taxes	- To reflect revised flow through impact	(778)
		- To reflect change in depreciable life of TMI-2 to 40 years	2,677
	Total rate base changes		$10,060
8.	Amortization of deferred energy expense	- To change expense to reflect:	
		. Increase in projected 4/30/79 balance	($ 238)
		. Expense before taxes	(724)
9.	Depreciation expense	- To reduce expense to reflect TMI-1 40 year life	738
10.	Income taxes - State & Federal	- To reflect changes in pro forma income statement	392
11.	Decommissioning expense	- To reduce expense to reflect a TMI-1 40 year life	55

Appendix #	Area	Change: Reason	Effect on Rate Base or Income
12.	Provision for deferred income taxes - Federal	- To reflect the change in deferred energy cost balance as of 4/30/79 and lower amortization rate	(172)
		- To reflect the change in TMI-1 depreciable life to 40 years	152
13.	Provision for deferred income taxes - State	- To reflect the change in deferred energy cost balance as of 4/30/78 and lower amortization	(44)
		- To reflect the change in TMI-1 depreciable life to 40 years	23
14.	State tax flow through	- To reflect the increase in federal taxes resulting from flow through of state tax benefit	(408)
		- To reflect the change in TMI-1 depreciable life to 40 years	(42)
15.	TMI-2 depreciation expense	- To reflect the change to a 40 year depreciable life	2,485
16.	Income taxes - State & Federal	- To reflect the changes in the pro forma income statement	(5,020)
17.	TMI-2 decommissioning expense	- To reduce expense to reflect a TMI-2 40 year life	60
18.	Provision for deferred income taxes	- To reflect the change in TMI-2 depreciable life to 40 years	1,508
19.	Investment tax credit	- To reflect the change in TMI-2 depreciable life to 40 years	2,269
20.	State tax flow through	- To reflect the change in TMI-2 depreciable life to 40 years	(318)
		- To reflect increase in federal taxes resulting from the flow through of the state tax benefit	(460)
21.	Budget vs. actual	- Budget vs. actual update 10/31/78	(364)
	Total revenues and expenses changes		($ 108)

			Final Jurisdictional Recommendation
22.	Pa. Jurisdictional Revenue Requirement	- To reflect changes as per above 21 appendices	$33,122

Appendix #	Area	Reason	Effect on Rate Base or Income
12.	Provision for deferred income taxes - Federal	- To reflect the change in deferred energy cost balance as of 4/30/79 and lower amortization rate	(172)
		- To reflect the change in TMI-1 depreciable life to 40 years	152
13.	Provision for deferred income taxes - State	- To reflect the change in deferred energy cost balance as of 4/30/78 and lower amortization	(44)
		- To reflect the change in TMI-1 depreciable life to 40 years	23
14.	State tax flow through	- To reflect the increase in federal taxes resulting from flow through of state tax benefit	(408)
		- To reflect the change in TMI-1 depreciable life to 40 years	(42)
15.	TMI-2 depreciation expense	- To reflect the change to a 40 year depreciable life	2,485
16.	Income taxes - State & Federal	- To reflect the changes in the pro forma income statement	(5,020)
17.	TMI-2 decommissioning expense	- To reduce expense to reflect a TMI-2 40 year life	60
18.	Provision for deferred income taxes	- To reflect the change in TMI-2 depreciable life to 40 years	1,508
19.	Investment tax credit	- To reflect the change in TMI-2 depreciable life to 40 years	2,269
20.	State tax flow through	- To reflect the change in TMI-2 depreciable life to 40 years	(318)
		- To reflect increase in federal taxes resulting from the flow through of the state tax benefit	(460)
21.	Budget vs. actual	- Budget vs. actual update 10/31/78	(364)
	Total revenues and expenses changes		($ 108)

	Area	Reason	FINAL JURISDICTIONAL RECOMMENDATIONS
22.	Pa. JURISDICTIONAL Revenue Requirement	- To reflect changes as per above 21 appendices	$33,122

MET ED

PLANT HELD FOR FUTURE USE

FOR THE YEAR ENDING MARCH 31, 1979
($000)

1)	Company claim for year end electric plant held for future use (A)	$2,640
2)	Recommended adjustment to reduce balance from year end to average rate base (B)	1,471
3)	Recommended plant held for future use (line 1 - line 2)	$1,169

Source:

(A) Exhibit B-2, Section C-2, p. 1
(B) Appendix 1, p. 2

MET ED

PLANT HELD FOR FUTURE USE

CALCULATION OF AVERAGE LEVEL OF INVESTMENT

FOR THE YEAR ENDING MARCH 31, 1979

	Budgeted Balance of Plant Held for Future Use Excluding the Coal Reserves (A)	Budgeted Coal Reserves Expenditures (B)	Total Budgeted Plant Held For Future Use (C)
	(1)	(2)	(3)
April 1, 1978	$ 997	$	$ 997
April 30	997		997
May 31	997		997
June 30	997		997
July 31	997		997
August 31	997		997
September 30	997		997
October 31	997		997
November 30	997		997
December 31	997	316	1,318
January 31, 1979	997	478	1,475
February 28	997	640	1,637
March 31	997	802	799
Total	12,961	2,236	15,197
Average Monthly Investment	$ 997	$ 172	1,169
Company Claim (A)			2,640
Recommended adjustment to reduce the balance from year end to an average rate base			$ 1,471

Source:

(A) Exhibit B-2, Section C-2, p. 3
(B) TR, p. 831
(C) Col. (1) + Col. (2)

MET ED

DEPRECIATION RESERVE EXCLUDING TMI-2

FOR THE YEAR ENDING MARCH 31, 1979
($000)

1)	Company claimed year end balance, total depreciation reserve as adjusted (A)	$210,757
2)	Recommended adjustment to depreciation reserve to reduce the balance from year end to average rate base (B)	(9,553)
3)	Recommended adjustment to increase reserve balance from budget to actual as of 10/31/78 (C)	2,870
4)	Recommended adjustment to increase reserve balance from the book reserve to the calculated reserve (D)	4,414
5)	Recommended adjustment to the depreciation reserve to reflect the revised TMI-1 life of 40 years	(3,501)
6)	Total recommended adjustments to depreciation reserve (line 2 + through line 4)	(5,770)
7)	Recommended depreciation reserve (line 1 - line 5)	$204,987

Source:

(A) Exhibit B-2, Section C-2, p. 1
(B) Appendix 2, p. 2
(C) Appendix 2, p. 4
(D) Appendix 2, p. 5
(E) Appendix 2, p. 6

MET ED

DEPRECIATION RESERVE EXCLUDING TMI-2

TO ADJUST BALANCE FROM YEAR END TO AVERAGE RATE BASE

FOR THE YEAR ENDING MARCH 31, 1979
($000)

1)	Company claimed year end balance, total depreciation reserve as adjusted (A)	$210,757
2)	Thirteen month average per company budget (A)	201,204
3)	Recommended adjustment to reduce balance from year end to average reserve (line 1 - line 2)	$ 9,553

Source:

(A) Exhibit B-2, Section C-2, p. 1
(B) Appendix 2, p. 3

MET ED

DEPRECIATION RESERVE EXCLUDING TMI-2

MONTHLY RESERVE BALANCE

FOR THE YEAR ENDING MARCH 31, 1979
($000)

		Budgeted Depreciation Reserve (A)	TMI-1 Ring (0) Girder	TMI-2 Depreciation (B)	Budgeted Depreciation Reserve Excluding TMI-2 & TMI-1 Ring Girder (C)
		(1)	(2)	(3)	(4)
1)	April 1, 1978	$ 193,169	$ 314	$	$ 192,855
2)	April 30	194,612	322		194,290
3)	May 31	195,987	330		195,657
4)	June 30	197,362	338		197,024
5)	July 31	199,733	346	999	198,388
6)	August 31	202,104	354	1,998	199,752
7)	September 30	204,478	362	2,997	201,119
8)	October 31	206,850	370	3,996	202,484
9)	November 30	209,223	378	4,995	203,850
10)	December 31	211,606	386	5,994	205,226
11)	January 31, 1979	214,167	394	6,993	206,780
12)	February 28	216,731	402	7,992	208,337
13)	March 31	219,295	410	8,991	209,894
14)	Total	$2,665,317	$4,706	$44,955	$2,615,656
15)	Average monthly balance	$ 205,024	$ 362	$ 3,458	$ 201,204

Source:

(A) Exhibit B-105, p. 2, Col. 3
(B) TR, p. 858
(C) Col. 1 - Col. 2
(D) Huff Rebuttal, Tr., p. 2319-20

NOTE: Necessary to eliminate the ring girder from the budget to compare against year end. Also went to 13 point average comparable to EPIS.

MET ED

DEPRECIATION RESERVE EXCLUDING TMI-2

TO ADJUST BALANCE FROM BUDGET TO ACTUAL

FOR THE YEAR ENDING MARCH 31, 1979
($000)

1)	Depreciation reserve per the company budget for the month ending October 31, 1978	$202,854
2)	Actual depreciation reserve as of August 31, 1978 (B)	205,724
3)	Recommended adjustment to increase the reserve to actual October 31, 1978 balance (line 2 - line 1)	$ 2,870

Source:

(A) Appendix 2, p. 3
(B) October 1978 Operating Report, p. 200

MET ED

DEPRECIATION RESERVE EXCLUDING TMI-2

TO ADJUST BALANCE FROM BOOK TO CALCULATED RESERVE

FOR THE YEAR ENDING MARCH 31, 1979
($000)

1)	Total claim for depreciation reserve based on book balance excluding TMI-2 and TMI-1 ring girder (A)	$210,757
2)	Projected balance based on the calculated reserve excluding TMI-2 (A)	215,171
3)	Recommended adjustment to increase balance from book to calculated reserve (line 2 - line 1)	$ 4,414

Source:

(A) Exhibit B-2, Section D-2, p. 2

MET ED

DEPRECIATION RESERVE
($000)

1)	Company claim for TMI-1 calculated depreciation reserve (4.13 years at 6,428/year) (A)	$26,579
2)	Recommended calculated depreciation reserve at (4.13 years and $5,588/year (B)	23,078
3)	Recommended adjustment to depreciation reserve based on revised TMI-1 life (line 1 - line 2)	$ 3,501

Source:

(A) Exhibit B-2, D-2, p. 2
(B) Accrual rate 2.8(C) x $199,563(D)
(C) Appendix 9, p. 2
(D) Appendix 9, p. 1

MET ED

MATERIALS AND SUPPLIES INVENTORIES

FOR THE YEAR ENDING MARCH 31, 1979
($000)

1)	Budgeted level of materials and supplies inventories for the year ending 3/31/79 (A)	$10,746
2)	Recommended adjustment to reduce budgeted inventories to actual (B)	446
3)	Recommended materials and supplies inventory (line 1 - line 2)	$10,300

Source:

(A) Exhibit B-2, Section C-2, p. 11
(B) Appendix 3, p. 2

MET ED

MATERIALS AND SUPPLIES INVENTORIES

ADJUSTMENT TO REDUCE BUDGET TO ACTUAL

FOR THE YEAR ENDING MARCH 31, 1979
($000)

1)	Budgeted level of material and supplies inventories for 8/31/78 (A)	$10,907
2)	Actual level of inventories, 8/31/78 (B)	10,461
3)	Recommended adjustment to reduce budgeted level to actual (line 1 - line 2)	$ 446

Source:

(A) Exhibit B-2, Section C-2, p. 11
(B) October 1978 Operating Report, p. 255

MET ED

UNAMORTIZED DEFERRED ENERGY COSTS

FOR THE YEAR ENDING MARCH 31, 1979
($000)

		A*	B*
1)	Company claim for unrecovered balance of energy costs under old retail energy clause after phase-in of PA. PUC ordered net energy clause (A)	$9,100	$14,021
2)	Related accumulated deferred income taxes (line 1 x 51.67%)	4,702	7,245
3)	Recommended balance of unrecovered costs net of taxes (line 1 - line 2)	4,398	6,776
4)	Recommended adjustment to reduce balance of deferred energy costs to reflect the average level of normalized amortization during the test year [(line 3 ÷ 10) ÷ 2]	220	339
5)	Company claim for unamortized deferred energy costs net of taxes (A)	4,235	4,235
6)	Total recommended adjustments (line 7 - line 5)	-57	+2,202
7)	Recommended average unamortized deferred energy costs (line 3 - line 4)	$4,178	$ 6,437

Source:

(A) Exhibit B-143, p. 4

* Column A shows the calculations without the inclusion of the deferred energy costs associated with TMI-2 delay.
Column B shows the calculations including these additional costs.

MET ED

DEFERRED INCOME TAXES

FOR THE YEAR ENDING MARCH 31, 1979
($000)

1)	Company claim for year end deferred income taxes (A)	$47,199
2)	Recommended adjustment to reduce the balance from year end to average rate base (B)	(2,673)
3)	Recommended adjustment to increase budgeted balance to actual as of 8/31/78 (C)	97
4)	Recommended adjustment to reduce balance to reflect the impact of the recent federal tax law change (D)	(1,653)
5)	Recommended adjustment to reduce balance to reflect the flow through of the deferred income tax benefit on state taxes (E)	(935)
6)	Recommended adjustment to reduce the balance to reflect a change in depreciable life for TMI-1 to 40 years (F)	(175)
7)	Total recommended adjustments (line 2 thru line 6)	(5,339)
8)	Recommended deferred income taxes (line 1 - line 7)	$41,860

Source:

(A) Exhibit B-2, Section C-2, p. 1
(B) Appendix 5, p. 2
(C) Appendix 5, p. 3
(D) Appendix 5, p. 5
(E) Exhibit B-103, p. 2
(F) Appendix 12, line 8 + Appendix 13, line 7

MET ED

DEFERRED INCOME TAXES
TO ADJUST FROM YEAR END TO AVERAGE RATE BASE

FOR THE YEAR ENDING MARCH 31, 1979
($000)

		Average During The Test Year (1)	Normalization (2)	Normalized Average Balance (3)
1)	Liberalized depreciation excluding TMI-2 (A)	$45,513	$	$45,513
2)	Deferred energy (A)	7,476	(7,476)	
3)	Reacquired debt (B)	(87)		(87)
4)	Tax benefits (A)	(2,252)	2,252	
5)	Capitalized taxes (A)	122	(122)	
6)	CIAC (B)	(900)		(900)
7)	Past 1969 expansion additions (C)	938	(938)	
8)	Total	$50,810	($6,284)	$44,526
9)	Company claim for normalized deferred income taxes (D)			47,199
10)	Recommended adjustment to reduce balance from year end to average rate base (line 9 - line 8)			$ 2,673

Source:

(A) Exhibit B-105-1
(B) Average of 3/31/78 and 3/31/79 balance
Exhibit B-2, Section C-1, p. 18 & Section C-2, p. 18
(C) Average of 3/31/78 and 3/31/79 balance

3/31/78		$1,145	Exhibit B-2, Section C-1, p. 17
Balance excl. TMI-2	$7,329		Exhibit B-2, Section C-2, p. 17
TMI-2	6,606		Exhibit B-105-1, p. 1
3/31/79		732	
Total		1,877	
Average		$ 938	

(D) Exhibit B-2, Section C-2, p. 1

MET ED

DEFERRED INCOME TAXES
TO ADJUST FOR THE DIFFERENCE BETWEEN BUDGET AND ACTUAL

FOR THE YEAR ENDING MARCH 31, 1979
($000)

1)	Budgeted balance of deferred income taxes as of 10/31/78 (A)	$44,844
2)	Actual balance of deferred income taxes (A)	44,941
3)	Recommended adjustment to deferred income taxes to reduce the balance from budget to actual (line 2 - line 1)	$ 97

Source:

(A) RB-10, p. 4

MET ED

DEFERRED INCOME TAXES
CALCULATION OF THE OCTOBER 31, 1978 BALANCE
($000)

1)	Actual liberalized depreciation (A)	$46,057
2)	Actual reacquired debt (A)	(88)
3)	Actual contribution in aid of construction (B)	(1,028)
4)	Actual normalized balance (line 1 thru line 3)	$44,941
5)	Budgeted liberalized depreciation (C)	45,855
6)	Budgeted reacquired debt (D)	(88)
7)	Budgeted contribution in aid of construction (D)	(923)
8)	Total budgeted normalized balance (line 5 thru line 7)	$44,844

Source:

(A) October 1978 Operating Report, p. 298
(B) October 1978 Operating Report, p. 257
(C) Exhibit B-105-1, p. 2
(D) Straight line projection between 3/31/78 and 3/31/79

MET ED

DEFERRED INCOME TAXES
TO ADJUST BALANCE DUE TO THE IMPACT OF THE
1978 FEDERAL TAX LAW

FOR THE YEAR ENDING MARCH 31, 1979
($000)

1)	Company claim for deferred income taxes as of 12/31/78 (A)	$49,332
2)	Recommended adjustment to reduce balance of deferred taxes as of 12/31/78 due to the decrease in the federal tax rate (line 1 x .0335(B))	$ 1,653

Source:

(A) Schedule RB-10, p. 6
(B) Calculated difference in accrual rates

MET ED

DEFERRED INCOME TAXES
CALCULATION OF DECEMBER 31, 1978 BUDGETED BALANCE

FOR THE YEAR ENDING MARCH 31, 1979
($000)

	Budgeted Balance as of 12/31/78 (A)
Accelerated depreciation (A)	$47,168
Deferred energy (A)	4,662
Capitalized taxes (A)	154
Post 1969 expansion additions (B)	835
Tax benefits (A)	(2,428)
CIAC (B)	(969)
Reacquired debt (B)	(90)
Total	$49,332

Source:

(A) Exhibit B-105-1, p. 2
(B) Straight line projection between March 31, 1973 and March 31, 1979.

MET ED

THREE MILE ISLAND #2 - DEPRECIATION RESERVE

FOR THE YEAR ENDING MARCH 31, 1979
($000)

1)	Company claim for accumulated reserve for depreciation for TMI-2 as of 3/31/79 (A)	$5,993
2)	Recommended adjustments to accrue a full year of depreciation expense (line 1)	5,993
3)	Recommended adjustment to increase depreciation reserve based on the recommended increase in TMI-2 EPIS [(line 1 + line 2) x .0329(B)]	393
4)	Recommended adjustment to reflect the change in TMI-2 depreciable life to 40 years (C)	(2,485)
5)	Total recommended adjustments (line 2 + line 3 + line 3A	3,901
6)	Recommended TMI-2 depreciation reserve	$9,894

Source:

(A) Exhibit B-2, Section C-2, p. 1
(B) OCA Statement 2-A, Schedule TMI-RB-1, Ratio of company claim for EPIS and total recommended adjustment. ($11,306 ÷ 343,651 = .0329)
(C) Appendix 15, p. 2, line 5

MET ED

THREE MILE ISLAND #2 - DEFERRED INCOME TAXES

FOR THE YEAR ENDING MARCH 31, 1979
($000)

1)	Company claim for accumulated deferred taxes due to TMI-2 based on an average level during the test year (A)	$ 4,494
2)	Recommended adjustment to increase the balance to the year end level (line 1)	4,494
3)	Recommended adjustment to increase balance due to the recommended increase in TMI-2 EPIS [(line 1 + line 2) x .0329(B)]	296
4)	Recommended adjustment to increase the balance to reflect the impact of timing differences between recognizing TMI-2 for tax and book purposes (C)	6,590
5)	Recommended adjustment to reduce balance due to the change in the federal income tax law (D)	(532)
6)	Recommended adjustment to reduce the balance to reflect the impact of state tax flow through *ɔ current ratepayers (E)	(1,045)
7)	Recommended adjustment to reflect the change in depreciable life of TMI-2 to 40 years (lines 1, 2, 3, 4 & 5 x .1745(F))	(2,677)
8)	Total recommended adjustments (line 2 thru line 7)	7,126
9)	Recommended position (line 1 + line 8)	$11,620

Source:

(A) Exhibit B-2, Section C-2, p. 1
(B) OCA Statement 2-A, Schedule TMI-RB-2, (B)
(C) OCA Statement 2-A, Schedule TMI-RB-3, p. 2
(D) OCA Statement 2-A, Schedule TMI-RB-3, p. 3
(E) OCA Statement 2-A
(F) Appendix 18, (c)

MET ED

AMORTIZATION OF DEFERRED ENERGY EXPENSE

FOR THE YEAR ENDING MARCH 31, 1979
($000)

1)	Company claim for amortization of deferred energy balance under the old retail energy clause at 3/31/79, based on 5 year amortization period (A)	$ 1,820
2)	Revised projected unamortized balance of deferred energy expense at the end of the transition period (B)	14,021
3)	Recommended deferred energy expense based on 10 year amortization period (line 2 ÷ 10)	$ 1,402

Source:

(A) Exhibit B-2, Section G-2, p. 19
(B) Exhibit B-143, p. 4

POOR ORIGINAL

PENNSYLVANIA ELECTRIC COMPANY
Comparative Results of Extending Life Spans of Nuclear Stations
From Operating License Life to 35 Years or to 40 Years
All Computations Are On Current Surviving Plant or Estimated In-Service Amounts

	Surviving Plant	LICENSE LIFE SPAN				35 YEAR LIFE SPAN				40 YEAR LIFE SPAN			
		Average Service Life	Accrual Rate	Accrual Amount	Calculated Reserve	Average Service Life	Accrual Rate	Accrual Amount	Calculated Reserve	Average Service Life	Accrual Rate	Accrual Amount	Calc-lated Reserve
EE MILE ISLAND - #1	(A)		34 Years; 1974-2008		(B)		1974 - 2009		(B)		1974 - 2014		
ount 321 Nuclear Structures	26 766 430	33.64	2.97%	795 783	2 639 277	34.54	2.90%	774 963	2 571 526	39.08	2.56%	684 881	2 279 748
ount 322 Reactor Plant	42 047 774	30.53	3.28%	1 377 389	4 522 675	31.15	3.21%	1 350 004	4 432 593	33.95	2.95%	1 238 418	4 065 385
ount 323 Turbogenerator	17 840 801	30.20	3.31%	590 659	1 945 820	30.87	3.23%	577 864	1 905 688	34.19	2.92%	521 774	1 716 194
ount 324 Accessory Elec Equip	11 858 771	33.63	2.97%	352 588	1 174 181	34.51	2.90%	343 614	1 144 304	38.87	2.57%	305 074	1 015 975
ount 325 Misc. Power Equip.	1 676 880	29.16	3.43%	57 500	24 614	29.86	3.35%	56 155	20 307	33.27	3.01%	50 403	1 846
al TMI #1	100 190 656	31.57	3.17%	3 173 919	10 306 567	32.29	3.10%	3 102 600	10 074 418	35.78	2.80	2 800 550	9 079 148
EE MILE ISLAND - #2	(C)		31 Years; 1978-2009		(D)		1978 - 2013		(D)		1978 - 2018		(D)
ount 321	48 230 963	30.83	3.24%	1 564 417	782 208	34.38	2.91%	1 403 521	701 761	38.79	2.58%	1 244 359	622 180
ount 322	67 813 670	28.47	3.51%	2 381 934	1 190 967	31.03	3.22%	2 183 600	1 091 800	33.83	2.96%	2 007 285	1 003 642
ount 323	25 892 731	28.09	3.56%	921 778	460 889	30.78	3.25%	841 514	420 757	34.10	2.93%	758 657	379 329
ount 324	25 998 693	30.85	3.24%	842 745	421 373	34.37	2.91%	756 562	378 281	38.73	2.58%	670 766	335 383
ount 325	2 420 943	29.38	3.40%	82 401	41 201	32.44	3.08%	74 565	37 282	36.14	2.77%	67 060	33 530
al TMI #2	170 357 000	29.41	3.40%	5 793 275	2 896 638	32.39	3.09	5 259 762	2 629 881	35.88	2.79%	4 748 127	2 374 064

es:
(A) Surviving Plant at 12/31/77 Actual
(B) Calculated Reserves at 12/31/77
(C) Estimated Capitalization at In-Service Date
(D) Calculated Reserve is one-half of Annual Accrual Amount

Appendix 9 OCA
Wrap-Up Modificati
Of OI-7
Page 2 of 2

Schedule A
Page 1 of 1

MET ED

DEPRECIATION EXPENSE FOR TMI-1

FOR THE YEAR ENDING MARCH 31, 1979
($000)

1.	Total TMI-1 Nuclear Production Plant Balance at 3/31/78 (A)	$199,563
2.	Accrual rate assuming 34 year life (B)	3.17
3.	Accrual rate assuming 40 year life (B)	2.80
4.	Difference in accrual rate (line 2 - line 3)	.37
5.	Recommended reduction in d-preciation expense for TMI-1 to reflect a 40 year life (line 4 x line 1)	$ 738
6.	Previously recommended total depreciation expense excluding TMI-2 (C)	25,423
7.	Recommended deprec. ion expense excluding TMI-2 (line 6 - line 5)	$ 24,685

Source:

(A) Exhibit I-S, Section B, p. 1
(B) Calculated accrual rate as per attached Penelec Garland Exhibit I-29
(C) OCA Statement 2-A, Schedule 3

OCA WRAP UP
COMPUTATION OF MET-ED'S FEDERAL & STATE INCOME TAXES (EXCLUDING TMI-2)
FOR THE YEAR ENDING MARCH 31, 1979
($000)

		Pro Forma Under Existing Rates (D) (1)	(2)
1	Total Operating Revenue		$276,313
2	Less: Total O&M Expense (D)	$149,980	
3	Depreciation expense (D)	24,685	
4	Average net salvage (D)	192	
5	Decommissioning (D)	90	
6	Taxes other than income (D)	10,160	
7	Total deductions		185,107
8	Net operating income before income tax		91,206
9	Less interest charges (A)		27,597
10	Net income before income tax		63,609
	Adjustments to taxable income:		
	Add:		
11	Accrued rent-reading elec. light & power		3
12	AFUDC on nuclear fuel		469
13	Taxes assumed on customer deposits		1
14	Average net salvage		192
15	Amortization of deferred energy cost		1,402
	Deduct:		
16	Adjustment of depreciation to tax base (B)		17,533
17	Real estate taxes capitalized		6
18	Payroll taxes capitalized		1,153
19	Pension costs capitalized		1,394
20	Preferred dividend deduction		134
21	Dividend received exclusion		3
22	Cost of removal		640
23	Net adjustment		($ 20,720)
24	Income subject to state income tax		$ 42,889
25	State income tax at 6.9767%		2,992
26	Income subject to federal income tax		39,897
27	Federal income tax (46% less $18)		18,335
28	Less JDTC		3,662
29	Total federal tax before savings		14,673
30	Consolidated savings (C)		443
31	Total federal tax		$ 14,230

(A) Computation of interest charges:

Total measures of value (excl. eff. rate inc.) (E)	$688,214
Interest component of rate of return (Dr. Marcus)	4.01%
Interest expense	$ 27,595

(B) Computation of depreciation to tax basis:

Tax depreciation (F)	$ 42,218
Book depreciation	24,685
Depreciation adjustment	$ 17,533

(C) Computation of consolidated savings:

GPU interest applicable to Met-Ed (Exhibit B-13)	$ 963
Federal tax rate	46%
Consolidated savings	$ 443

(D) OCA Wrap Up Position Schedule 3
(E) OCA Wrap Up Position Schedule 2
(F) Appendix 10 page 2

MET ED

COMPUTATION OF ACCELERATED DEPRECIATION FOR TAX BASIS

FOR THE YEAR ENDING MARCH 31, 1979
($000)

1.	Company claim for normalized depreciation	$25,423
2.	Recommended adjustment (B)	738
3.	Adjustment as % of original claim (line 2 ÷ line 1)	3.0%
4.	Company claim for accelerated depreciation (C)	43,526
5.	Recommended reduction in accelerated depreciation based on the ratio of the reduction in normal depreciation (line 4 x line 3)	1,308
6.	Recommended accelerated depreciation (line 4 - line 5)	$42,218

Source:

(A) Appendix 10, p. 1
(B) Appendix 9, p. 1
(C) Exhibit B-2, Section G-2, p. 29

MET ED

TMI-1 DECOMMISSIONING EXPENSE

FOR THE YEAR ENDING MARCH 31, 1979

1)	Company claim for projected nuclear decommissioning costs applicable to Met Ed (A)	$12,450,000
2)	Assumed interest rate (A)	6.50%
3)	Assumed number of payments based on 36 years remaining on a 40 year life for TMI-1 and semi-annual payments	72
4)	Annuity factor based on the 72 semi-annual payments and 6.50% annual interest rate	276.98
5)	Recommended semi-annual payments (line 1 ÷ line 4)	$ 44,949
6)	Recommended annual expense for decommissioning (line 5 x 2; rounded)	$ 90,000

Source:

(A) TR, p. 949

MET ED

PROVISION FOR DEFERRED TAXES-FEDERAL

1.	Company claim for provision for deferred taxes federal (A)	$ 5,118
2.	Recommended adjustment to reflect change in tax rate from 48% to 46%	⟨213⟩
3.	Company claim for provision due to deferred energy amortization based on $1,820 x 41.17% (B)	(749)
4.	Recommended provision for deferred energy based on the amortization expense of $1,402 x 41.17%	(577)
5.	Recommended change in provision due to deferred energy amortization (line 3 - line 4)	172
	Subtotal (line 2 + line 5)	⟨41⟩
6.	Recommended provision for deferred taxes-federal excluding effect of change of life for TMI-1 to 40 years (line 1 + line 6)	5,077
7.	Reduction in depreciation expense due to change in TMI-1 life to 40 years (C)	3.0%
8.	Recommended reduction in provision for deferred taxes-federal due to TMI-1 life change to 40 years	(152)
9.	Total recommended adjustments	(193)
10.	Recommended provision for deferred taxes-federal	$ 4,925

Source:

(A) Exhibit B-2, Section G-2, p.30
(B) Company claim for amortization of $1,820
(Tax rate of 41.17% = 51.67-10.5% = deferral rate at 46% less state portion

(C) Revised claim for depreciation expense / Previous claim for depreciation expense $\frac{\$25,423}{\$24,685}$ = 3.0% change

(Source of depreciation expense: Appendix 9)

MET ED

PROVISION FOR DEFERRED TAXES-STATE

FOR THE YEAR ENDING MARCH 31, 1979
($000)

1.	Company claim for provision for total state deferred income taxes (A)	$ 720
2.	Company claim for the provision due to deferred energy amortization ($1,820 amortized at 10.5% (A)	(191)
3.	Recommended provision for deferred energy amortization (1,402 at 10.5% (B))	〈147〉
4.	Recommended change in provision for deferred energy (line 2 - line 3)	44
5.	Recommended provision for deferred taxes-state excluding the effect of a change in life for TMI-1 to 40 years	764
6.	Reduction in depreciation expense due to change in TMI-1 life (C)	3.0%
7.	Recommended reduction due to 40 year TMI-1 life (line 5 x line 6)	〈23〉
8.	Total recommended adjustments (line 4 + line 7)	21
9.	Recommended provision for deferred taxes-state (line 1 + line 8)	$ 741

Source:

(A) Exhibit B-2, Section G-2, p. 30
(B) Appendix 8
(C) Appendix 12

MET ED

FLOW THROUGH OF ACCELERATED DEPRECIATION BENEFITS

FOR THE YEAR ENDING MARCH 31, 1979
($000)

1.	Company claim for the provision for deferred taxes-federal for accelerated depreciation (A)	$ 5,913
2.	Company claim for provision for deferred taxes-state for accelerated depreciation (6.9767%) (A)	914
3.	Previous recommended benefit due to state tax flow through at the 10.5% rate (B)	1,385
4.	Recommended reduction in the provisions due to the change in depreciable life of TMI-1 (lines 1 through 3 x 97%)	
5.	Federal	5,736
6.	State at 6.9767%	887
7.	State at 10.5%	1,343
8.	Recommended adjustment to reduce the benefit of the state tax flow through due to the increase in federal tax deferral provision (887 x 46%)	408
9.	Revised recommended benefit of state tax flow through (line 7 - line 8)	$ 935

Source:

(A) Exhibit B-2, Section G-2, p. 30
(B) OCA Statement 2A, Schedule 3

MET ED

THREE MILE ISLAND #2

COMPUTATION OF INVESTMENT RELATED ITEMS

BASED ON YEAR-END LEVEL OF INVESTMENT

FOR THE YEAR ENDING MARCH 31, 1979
($000)

	Column 1 (A)	Column 2 (B)
1. Book depreciation	$ 11,985	$ 9,894
2. Tax depreciation	29,834	25,440
3. Investment tax credit	13,331	11,368
4. AFC on nuclear fuel	1,336	1,380
5. Investment tax credit (net)	12,594	10,739

Source:

(A) Company position computed based on Three Mile Island #2 investment in electric plant in service of $343,651

(B) Column 1 x 82.55% (C)

(C) Recommended depreciation expense (Appendix 15, p. 2) $ 9,894
Company original claim for depreciation expense (Column 1, line 1) 11,985

Ratio of recommended expense to the original claim 82.55%

MET ED

DEPRECIATION EXPENSE FOR TMI-2

FOR THE YEAR ENDING MARCH 31, 1979
($000)

1.	Recommended TMI-2 electric plant in service (A)	$354,957
2.	Accrual rate used in calculating depreciation expense based on a 31 year life (B)	3.49
3.	Accrual rate based on a 40 year life (C)	2.79
4.	Difference in accrual rates (line 2 - line 3)	.70
5.	Recommended reduction in TMI-2 depreciation expense based on a 40 year plant life (line 1 x line 4)	$ 2,485
6.	Previously recommended depreciation expense (D)	12,379
7.	Recommended TMI-2 depreciation expense	9,894

Source:

(A) OCA Statement 2A, Schedule TMI-RB-1
(B) Exhibit B-2, Section D-2, p. 2
(C) Appendix 9, p.2
(D) OCA Statement 2A, Schedule TMI-OI-3

THREE MILE ISLAND #2

COMPUTATION OF FEDERAL AND STATE TAXES

FOR PRO FORMA OPERATING INCOME

1.	Operating revenues	$
2.	Operating expenses (A)	(6,187)
3.	Depreciation expense (C)	9,894
4.	Decommissioning expense (A)	67
5.	Operating income before interest (line 1 - line 2 - line 3 - line 4)	(3,774)
6.	Interest expense (B)	12,693
7.	Operating income before federal and state taxes (line 5 - line 6)	(16,467)
	Adjustments	
8.	Add - AFC on nuclear fuel (C)	1,380
9.	Add - Book depreciation (C)	9,894
10.	Deduct - Tax depreciation (C)	25,440
11.	Net adjustments (line 8 + line 9 - line 10)	(14,166)
12.	Taxable income (line 7 + line 11)	(30,633)
13.	Pennsylvania income tax (line 12 x 6.9767%)	(2,137)
14.	Income subject to federal income tax (line 12 - line 13)	28,496
15.	Federal income tax (line 14 x 46%)	(13,108)
16.	Investment tax cretit (C)	(11,368)
17.	Total federal income tax (line 15 + line 16)	($ 24,476)

Source:

(A) OCA Wrap-Up position Schedule 4

(B) Total TMI-2 rate base (OCA Wrap-Up Position, Schedule 2) — $316,539

Interest Component of rate of return (OCA Statement 1) — 4.01%

Interest expense — $ 12,693

(C) Appendix 15, p. 1

MET ED

TMI-2 DECOMMISSIONING EXPENSE

FOR THE YEAR ENDING MARCH 31, 1979

1.	Company claim for projected nuclear decommissioning costs applicable to Met Ed (A)	$12,200,000
2.	Assumed interest rate (A)	6.50%
3.	Assumed number of payments based on a 40-year life for TMI-2 and semi-annual payments	80
4.	Annuity factor based on 80 semi-annual payments and a 6.50% annual interest rate	366.719
5.	Recommended semi-annual payments (line 1 ÷ line 4)	33,268
6.	Recommended annual expense for decommissioning (line 5 x 2, rounded)	67,000

Source:

(A) Tr, p. 950

MET-ED
TMI-2 PROVISION FOR DEFERRED INCOME TAXES
FOR THE YEAR ENDING MARCH 31, 1979

($000)

1.	Company claim for provision for deferred income taxes(A)	8,680
2.	Previous recommended adjustment to increase balance because of additional EPIS and reduce the balance due to the change in the federal tax rate (B)	(36)
3.	Previous recommended position (B)	8.644
4.	Reduction in depreciation expense due to change in TMI-2 depreciable life to 40 years (C)	(17.45%)
5.	Recommended reduction in provision due to the change in depreciable life to 40 years (line 3 x line 4)	1.508
6.	Recommended provision for deferred income taxes for TMI-2 (line 3 - line 5)	$7,136

(A) Exhibit B-2, Section G-2, p. 1
(B) OCA Statement 2a, Schedule TMI-OI-5, page 1
(C) Appendix 15 (100%-82.55% = 17.45%)

Appendix 19
OCA Wrap-Up
Modification of
TMI-OI-3

MET ED

INVESTMENT TAX CREDIT (NET)

FOR THE YEAR ENDING MARCH 31, 1979

See Appendix 15, line 5

MET-ED
FLOW THROUGH OF ACCELERATED DEPRECIATION BENEFITS - STATE FOR THE YEAR ENDING MARCH 31, 1979

($000)

1. Company claim for provision for deferred income taxes adjusted for the 3.29% increase in EPIS and 46% rate (A)

		Claim	Adjusted
2.	FEDERAL	$7,507 (A)	$7,432
3.	STATE at 6.9767%	1,173 (A)	1,212
4.	STATE at 10.5%	1,765 (B)	1,823

5. Reduction of provision due to decrease in depreciation due to change in depreciable life from 31 to 40 years - (Reduce # by 17.45% (C))

6.	FEDERAL	6,135
7.	STATE at 6.9767%	1,001
8.	STATE at 10.5%	1,505

9. Recommended reduction of state tax flow through benefit due to the increase in the federal deferred taxes. (line 7 x 46%) — 460

10. Recommended state tax flow through benefit (line 8 - line 9) — $1,045

(A) Exhibit B-2 §G-2, P. 39
(B) (Line 3 ÷ 6.9767%) x 10.5%
(C) Appendix 18

MET ED

BUDGET VERSUS ACTUAL TEST YEAR TO DATE

FOR THE YEAR ENDING MARCH 31, 1979

		Variance
1)	Base revenues (A)	($ 317)
2)	Other revenues (B)	132
3)	Total revenues (line 1 + line 2)	(185)
	Operating expenses:	
4)	Payroll (C)	53
5)	Other O & M (D)	1,544
6)	Total O & M (line 4 + line 5)	1,597
7)	Depreciation (E)	(298)
8)	Total operating expenses (line 6 + line 7)	(1,299)
9)	Operating income before income taxes (line 1 - line 8)	(1,484)
10)	Income taxes (line 9 x 53.46%)	(793)
11)	Operating income after income taxes (line 9 - line 10)	($ 690)

Source:

(A) Appendix 21, p. 2
(B) Exhibit B-16-5, p.2
(C) Appendix 21, p. 3
(D) Appendix 21, p. 4
(E) Appendix 21, p. 5

MET ED

BUDGET VERSUS ACTUAL - TEST YEAR TO DATE

BASE REVENUES VARIANCE

FOR THE YEAR ENDING MARCH 31, 1979
$000

1)	Base revenues budget for the seven months ending 10/31/78 (A)	125,774
2)	Actual revenue realized during the seven months ending 10/31/78 (A)	138,104
3)	Variance in base revenues, test year to date (line 2 - line 1)	12,330
4)	Increase in fuel costs included in base revenues for the test year to date (B)	12,647
5)	Actual variance in base revenues for the test year to date (line 3 - line 4)	($ 317)

Source:

(A) Exhibit B-16-5, p. 2
(B) TR, p. 909

MET ED

BUDGET VERSUS ACTUAL - TEST YEAR TO DATE

PAYROLL VARIANCE

FOR THE YEAR ENDING MARCH 31, 1979
($000)

1)	Payroll Budgeted for seven months ending 10/31/78 including 8.03% wage rate increase (A)	$20,480
2)	Base payroll (line 1 - 1.0803)	18,958
3)	Budgeted payroll based on 7.34% wage increase (line 2 x 1.0734)	20,350
4)	Reduction in payroll budget (line 1 - line 33)	130
5)	TMI-2 budgeted payroll (B)	1,058
6)	Total reduction in budget (line 4 + line 5)	1,188
7)	Actual variance to date over original budget (A)	1,135
8)	Actual payroll over revised budget (line 6 - line 7)	$ 53

Source:

(A) Exhibit B-16-5, p. 2
(B) TMI-2 Payroll budget for two months $529 Exhibit B-16-2, p. 27
Assume constant TMI-2 payroll x2
therefore TMI-2 Payroll budget for four months $1,058

MET ED

BUDGET VERSUS ACTUAL - TEST YEAR TO DATE

OTHER OPERATION AND MAINTENANCE EXPENSE

FOR THE YEAR ENDING MARCH 31, 1979
($000)

1)	Other O & M expense budgeted for the seven months ending 10/31/78 (A)	$27,612
2)	Actual other O & M expense realized during the test year to date (A)	27,552
3)	Variance in other O & M expense to date (line 1 - line 2)	60
4)	Variance due to the delay in TMI-2 startup (B)*	1,604
5)	Actual other O & M expense over budget (line 4 - line 3)	$ 1,544

Source:

(A) Exhibit B-16-5, p. 2

(B)

TMI-2 other O & M expense budgeted for two months (Exhibit B-16-5, p. 2)	530
Assume constant TMI-2 other therefore TMI-2	x 2
budget for four months	1,060
Other O & M costs credited to construction (Exhibit B-16-2, p. 27)	544
Total variance due to the delay in TMI-2 startup.	$1,604

MET ED

BUDGET VERSUS ACTUAL TEST YEAR TO DATE

DEPRECIATION EXPENSE

FOR THE YEAR ENDING MARCH 31, 1979
($000)

1)	Depreciation expense variance for the seven months ending 10/31/78 (A)	$(4,294)
2)	Depreciation expense for TMI-2 included in the budget but not realized due to the delay in TMI-2 startup (B)	3,996
3)	Actual depreciation expense variance for the test year to date excluding the effect due to the late TMI-2 startup. (Line 1 - line 2)	$(298)

Source:

(A) Exhibit B-16-5, p. 2

(B) Budgeted TMI-2 depreciation expense for two months (Exhibit B-16-2, p. 27) $1,998
Assume straight line depreciation expense; therefore depreciation expense for four months is two months times 2.

	$1,998
	x 2
	$3,996

MET ED

PRO FORMA NON JURISDICTIONAL

NET OPERATING INCOME

			Source
1)	Non jurisdictional rate base	$48,642	Appendix 22 p.4, line 5
2)	Recommended rate of return	9.21%	Dr. Marcus
3)	Income requirement	$ 4,480	Line 1 x line 2
4)	Forecasted test year nonjurisdictional net operating income	$ 1,759	Appendix 22 p.2, line 9
5)	Nonjurisdictional net operating income requirement comparable to jurisdictional net operating income requirement	$ 2,721	Line 3 - line 4
6)	Recommended company pro forma income for the test year adjusted to reflect adjusted flow through of state taxes	73,512	OCA Wrap-up position Schedule 1, line 4 Col. (12)
7)	Recommended pro forma income to include nonjurisdictional income at a level sufficient to provide the recommended jurisdictional rate of return	76,233	Line 5 + line 6
8)	Income requirement	92,538	OCA Wrap-up position Schedule 1
9)	Jurisdictional income deficiency	16,305	line 8 - line 7
10)	Revenue factor	2.0314	
11)	Recommended jurisdictional revenue requirement	$33,122	

MET ED

NONJURISDICTIONAL FORECASTED NET UTILITY OPERATING INCOME
($000)

			Source
1)	Forecasted test year net revenue	$12,385	Exhibit C-3, p.17 Col. 5
2)	Adjustment to eliminate Company's annualization adjustment	275	Exhibit B-2, G-2, p.3, line 19
3)	Adjusted test year revenues	12,110	Line 1 - line 2
4)	Allocated test year operating expense	10,541	Appendix 22 p.3, line 8
5)	Operating income before tax	1,569	Line 3 - line 4
6)	Interest reduction associated with nonjurisdictional rate base	(1,951)	Appendix 22 p.4, line 7
7)	Taxable income	(382)	Line 5 + line 6
8)	Income taxes	(190)	Line 7 x .4977
9)	Net forecasted test year operating income associated with nonjurisdictional sales	$ 1,759	Line 5 + line 8

MET ED

NONJURISDICTIONAL OPERATIN[illegible] EXPENSES
($000)

			Source
1)	Company pro forma operating expense less income and revenue taxes	237,219	C-3, p.17, Col.6
2)	Recommended adjustments to pro forma operating expense less income taxes	(22,504	(A)
3)	Less recommended adjustment to gross receipts tax	(41)	OCA Statemen[illegible] 2-A, Schedule OI-6
4)	Recommended pro forma operating expense less income and revenue taxes	(22,463)	Line 2 - line 3
5)	Recommended position	214,756	Line 1 - line 4
6)	Recommended position as percent of Company position	90.5%	Line 5 - line 1
7)	Operating [illegible]xpense allocated to nonjurisd[illegible]ctional customers	11,644	C-3, p.5, Col.6
8)	Recommen[illegible]ed operating expense allocat[illegible]d to nonjurisdictional custom[illegible]s	$10,541	Line 6 x line 7
(A)	Non TMI-2 operating expense adjustments	($ 7,175)	OCA Wrap-up position Schedule 3
	TMI-2 operating expense adjustments	(38,918)	OCA Wrap-up position Schedule 4
	Less: Non TMI-2 federal-state income taxes	2,603	OCA Wrap-up position Schedule 3
	TMI-2 federal-state income taxes	(25,436)	OCA Wrap-up position Schedule 4
	Plus: Double coverage benefit	(378)	OCA Wrap-Up position Schedule 3
	Amortization of deferred tax benefit	(165)	OCA Wrap-Up position Schedule 3
	Budget versus actual before tax	1,299	Appendix 21, p.1
	Recommended adjustments to pro forma operating expenses less income taxes	$22,504	

MET ED

INTEREST ASSOCIATED WITH NONJURISDICTIONAL RATE BASE
($000)

			Source
1)	Recommended total Company rate base	$1,004,753	OCA Wrap-up position Schedule 2
2)	Company claimed rate base	$1,050,789	Exhibit B-2, C-2, p.1, col.7, line 27
3)	Ratio of recommended rate base to Company claim	95.62%	Line 1 - line 2
4)	Company recommended nonjurisdictional rate base	$ 50,871	Exhibit C-3, p.17 Col.9
5)	Adjusted nonjurisdictional rate base	$ 48,642	Line 4 x line 3
6)	Recommended weighted cost of debt	4.01%	Dr. Marcus
7)	Interest associated with nonjurisdictional rate base	$ 1,951	Line 5 x line 6

PROPOSED FINDINGS AND CONCLUSIONS

I. MEASURES OF VALUE

Proposed Findings

1. Met-Ed has employed a future test year based on the 12 months ending March 31, 1979.

2. Met-Ed has used a year end rate base and has made some thirty-two normalization and annualization adjustments to those rate base figures.

3. Respondent has included post test year additions in its claim for electric plant in service.

4. Use of an average rate base adjusted to reflect-actual available data is less speculative than use of a year end rate base.

5. Respondent has used a book depreciation reserve; longstanding Commission policy has been to require use of theoretical depreciation reserve.

6. Respondent has used a 34 year life for purposes of depreciation for TMI-1 and 31 year life for TMI-2; these life spans are not grounded in logic or law.

7. The increased unamortized deferred energy costs under the old clause are due to the failure of the main steam safety valves at TMI-2.

8. The Company has never before claimed the unamortized balance of storm damages in its rate base.

9. The Company has never before claimed the unamortized balance of rate case expenses in its rate base.

10. The issue of including the unamortized balance of rate case expenses in rate base is a question of first impression before this Commission.
11. Met-Ed's claim for cash working capital is predicted on a lead lag study which, improperly accounts for bill payments.
12. Respondent's claim for cash working capital does not consider all sources of working capital available to the Company.
13. Funds provided by ratepayers for interest payment on debt and dividend payments on preferred stock are sources of cash working capital.
14. The balance sheet approach to working capital looks at all sources and uses of working capital.
15. Based on the balance sheet approach, Met-Ed has no working capital requirement.
16. The Commission has decided that amortization Reserve-Federal is an operating reserve.
17. Penelec has failed to treat Amortization Reserve-Federal as an operating reserve, thereby understating its operating reserves by $371,000.
18. The reduction in the federal tax rate from 48% to 46% will create an excess in the unamortized balance of deferred income taxes.
19. Met-Ed claimed Electric Plant in Service for TMI-2 includes post test year investments.
20. Met-Ed claimed a full year's depreciation expense for TMI-2 on its income statement.

21. Met-Ed claimed only one-half a years impact of depreciation expense for TMI-2 in its reserve for depreciation.

22. Met-Ed has no working capital requirement based upon TMI-2.

23. Met-Ed has failed to recognize a full year's impact on rate base of Accumulated Deferred Income Taxes (Net) for TMI-2.

Proposed Conclusions

1. Rate base in this case should be determined based upon an averaged future test year adjusted to reflect actual totals.
2. Rate base in this case should be determined by treating known major additions on a year end basis.
3. This methodology avoids the speculative nature of a solely forecasted test year, the controversy inherent in numerous annualization adjustments to those forecasted numbers, and recognizes the necessity to include major additions at year end values.
4. The Consumer Advocate's rate base methodology presents a representative relationship between rate base, revenues and expenses that will give Met-Ed at some future date a reasonable opportunity to earn the allowed rate of return.
5. Electric Plant in Service, excluding TMI-2, adjusted according to an average rate base with actual balances considered, is $887,641,000.
6. Nuclear fuel-Spare Assemblies should be reduced by $567,000 to reflect updated estimates for the test year end purchases.
7. Electric Plant held for future use should be reduced by $1,471,000 to reflect updated estimates of coal reserve costs.
8. Depreciation reserve excluding TMI-2 should be reduced by $5,070,000 to reflect a 40 year life for TMI-1, theoretical

rather than book reserve, and an average rate base adjusted for actual available data.

9. Other material and supply inventories should be reduced by $446,000 to reflect the difference between budgeted and actual inventories.

10. Deferred energy costs under the new clause should be increased by $297,000 to reflect the new 46% federal tax rate.

11. Unamortized deferred energy costs under the old clause should be increased by $2,202,000 only if the failure of the Company to recover those costs is not attributable to the TMI-2 main steam safety valve failure and resultant TMI-2 in-service delay.

12. The balance sheet approach is the appropriate method to use for determining cash working capital requirement.

13. A finding of no working capital is appropriate.

14. Accumulated deferred income taxes (net), should be reduced by $5,339,000.

15. Amortized gain on reacquired debt should be increased by $204,000.

16. Income tax refunds should be increased by $68,000 to reflect an average level of refund.

17. Amortization Reserve - Federal represents excess earnings earmarked for a special account. As such, they are a non-investor supplied source of capital which must be deducted from measures of value, thereby increasing operating reserve by $371,000.

18. The excess in unamortized balance of deferred income taxes created by the new tax rate should be credited to ratepayers over ten years.

19. Met-Ed's claimed amount for Electric Plant in Service for TMI-2 must be reduced by that amount representing expenditures following the test year, $852,000.

20. TMI-2 should be treated for rate base purposes at a year end level of investment.

21. Met-Ed's treatment of depreciation expense for TMI-2 should be consistent with its treatment of the impact of that expense on depreciation reserve for TMI-2 for the test year.

22. TMI-2 credit for deferred energy costs under the new clause is understated by $258,000.

23. Accrued interest expense on debt and accrued dividends represent sources of cash working capital to Met-Ed, as recognized by recent Public Utility Commission decisions.

24. Met-Ed has no cash working requirement for TMI-2 since it did not take accrued interest expense on debt or accrued dividends into account when calculating its requirement.

25. If Met-Ed grants a full years treatment to TMI-2 on the income statement for its provision for deferred income taxes for TMI-2, it must also afford a full years treatment as to rate base for its accumulated deferred income taxes (net).

II. DELAYS IN THE CONSTRUCTION OF TMI-2

Proposed Findings

1. There were significant cost escalations in the construction of TMI-2.

2. Many of these escalations could have been controlled by management through the implementation of acceptable management techniques and exercise of sound management judgment.

3. One escalation which could have been so avoided was the cost escalation associated with the 4-6 month delay in 1976-77 caused by a drastic and unnecessary cutback in labor when construction was at its peak.

4. This delay cost Met-Ed's ratepayers $9-13 million.

5. Another escalation which could have been avoided was the cost escalation associated with choosing and installing larger than necessary mainsteam safety valves which later had to be replaced with smaller valves.

6. The failure of the main steam safety valves is an abnormal occurrence.

7. The failure of the main steam safety valves cost Met-Ed ratepayers approximately $12.158 million.

Proposed Conclusions

1. Public utilities occupy a quasi-public or quasi-trustee position which should be reflected in the rates which the public pays for its services.

2. The rates of a public utility must not only be just and reasonably; they must also reflect only those expenses which are prudently incurred.
3. Naivete is not a defense to imprudent decision making.
4. Met-Ed knew or should have known that the failure of the Company to implement sound management practices would make the project more prone to delays and cost escalations.
5. Met-Ed knew or should have known that the unnecessary cutback in the labor force when construction was at its peak would further delay the in-service date for TMI-2.
6. Met-Ed knew or should have known that increased risks were involved in using larger, untested safety valves rather than smaller valves that would have been tested prior to the time of installation.
7. Abnormal costs should not be borne entirely by ratepayers.
8. Imprudent expenditures should not be borne entirely, if at all, by ratepayers.
9. The amount of $12,158,000 should be deducted from rate base to reflect the sharing of the abnormal costs associated with the failure of the main steam safety valves.
10. A minimum of $9 million should be deducted from rate base to reflect the conclusion that the cost due to the imprudent decision to drastically cutback labor when construction was at its peak should not be included in rate base.

III. FAIR VALUE

Proposed Findings

1. The Company has filed its rate case using an original cost rate base.

2. The Consumer Advocate has recommended certain adjustments based on an original cost rate base.

3. Met-Ed's recommended fair value rate base is based on a spot price.

4. This Commission uses an average trended prices to establish a fair value rate base.

5. This Commission has recently adopted a five year trended rate base, weighted to trend only that portion which corresponds to the percentage of equity in the capital structure, with the balance taken at original cost.

Conclusions

1. The fair value of Met-Ed's rate base is its original cost.

2. Rate of return on fair value must yield the same return as rate of return on original cost.

3. Trending the entire rate base will provide an excessive return to equity holders.

4. The proper measure of fair value is the five year average trended rate base weighted to correspond t the percentage of equity in the capital structure of the Company.

IV. RATE OF RETURN

Proposed Findings

1. Dr. Marcus has made recommendations on the cost of capital based on his analysis of the requirements of investors, including any protection they require due to changes in the value of money over time.
2. To apply his recommendations to a rate base that is adjusted to account for inflation is to include the same factor twice -- resulting in a windfall to the Company.
3. This Commission has consistently allowed utility companies in this state to earn at the overall rate of return on the unamortized JDC balance.
4. No public utility in this state has had its JDC benefits revoked by the IRS.
5. The Company's proposed treatment of JDC is contrary to proposed IRS regulation §1.46-S(b).
6. The recommendations on capital structure and cost of debt and preferred by Dr. Marcus and Mr. Brennan are nearly identical, except for Mr. Brennan's adjustment for JDC.
7. Mr. Brennan's market derived return on equity of 12.2 - 12.5% is comparable to Dr. Marcus' market derived figure of 12.1%.
8. Mr. Brennan and investors do not know what a fair value rate base is.
9. Mr. Brennan's application of his market derived return on equity to a fair valur rate base strips his return on equity of its "market-relatedness."

10. Mr. Brennan's is unable to relate a return on fair value to a return on original cost as to any market indicator with which investors are familiar.

11. An allowance for flotation, market pressure and selling costs, is not necessary because the Company has not benefited from GPU sales of common stock for the last three years and does not anticipate receiving any contributions through 1980.

12. If an allowance for flotation is warranted at all, both Mr. Brennan and Dr. Marcus' studies support a 7.5% allowance.

Proposed Conclusions

1. For ratemaking purposes, the capital structure to be employed is 52% debt, 13% preferred stock and 35% common equity.

2. The cost of debt to be employed is 7.71%.

3. The cost of preferred stock to be employed is 7.4%.

4. The cost of equity to be employed is 12.1%.

5. The overall rate of return to be allowed, on original cost rate base, is 9.21%.

6. The fair rate of return to be applied to fair value is figure lower than 9.21% in inverse proportion to the ratio of fair value to net original cost.

V. REVENUES AND EXPENSES

Proposed Findings

1. Met-Ed's operating revenues are overstated by $2,067,000.
2. Met-Ed's base fuel expense is overstated by $1,263,000.
3. Met-Ed has claimed $2,572,000 for a wage increase that will first take effect in May of 1979.
4. The full annual effect of the May, 1979 wage increase will not be experienced until 13 months after the end of the future test year.
5. Met-Ed will not be reading meters on a monthly basis as originally contemplated.
6. $441,000 of payroll expenses are associated with monthly meter reading.
7. Met-Ed has claimed $480,000 of payroll expenses to reflect a year end level of employes.
8. TMI-1 has been operationally mature since May 2, 1978.
9. Met-Ed has overstated TMI-1 payroll expenses associated with 'maturity' by $234,000.
10. Met-Ed has claimed $165,000 in other O & M expenses associated with a year end level of customers.
11. Met-Ed has claimed $448,000 in other O & M expenses for increased employe benefits arising from its payroll expense adjustments.
12. $184,000 of other O & M expenses are related to monthly meter reading.
13. Met-Ed has overstated its research and development expense by $418,000.

14. Amortization of Met-Ed's deferred energy costs, over a ten-year period, results in a yearly expense of $1,402,000.

15. Met-Ed has not supported its $243,000 expense claim for Uranium Development.

16. Met-Ed has failed to reduce its operating expenses to reflect a $67,000 annual amortization of its net gain on reacquired debt.

17. Met-Ed, utilizing a "remaining lives" method for depreciation expense, has overstated its claim by $728,000.

18. The calculation of Met-Ed's TMI-1 decommissioning expense, consistent with the Commission's order in R.I.D. 434, as adjusted for a 40-year depreciable life, would reduce the allowable expense to $90,000.

19. Met-Ed's 1977 capital stock tax return, filed in October of 1978, estimated its tax liability at $3.5 million.

20. Met-Ed has overstated its taxes other than income taxes by $1,372,000.

21. Met-Ed has understated its Federal income tax expense by $2,147,000 and its State income tax expense by $456,000.

22. Met-Ed has overstated its provision for federal deferred income tax by $20,000.

23. Met-Ed has understated its provision for State deferred income tax by $21,000.

24. Met-Ed's net income after taxes does not reflect the $378,000 savings in financing cost associated with GPU double leverage.

25. Federal tax regulations do not prohibit a reduction of the accumulated deferred income tax account as a result of the recent reduction in the Federal corporate tax rate.

26. Met-Ed's net income after taxes does not reflect the $165,000 annual amortized savings associated with the reduction of its deferred tax liability arising from the recent change in the Federal corporate tax rate.

27. Federal law does not require normalization of the State income tax effects of accelerated depreciation.

28. Met-Ed has not adjusted its net income after taxes to reflect $935,000 in State tax savings associated with accelerated depreciation.

29. Federal law does not require normalization of interest deductions associated with CWIP.

30. Met-Ed has not adjusted its net income after taxes to reflect $810,000 in income tax savings resulting from interest deductions associated with CWIP.

31. A review of Met-Ed wrap-up data, depicting actual results of seven months of test year operations, indicates that its budget has overstated net income after taxes by $690,000.

32. TMI-2 will be in commercial service for, at most, three months of the test year in this case.

33. Met-Ed has overstated its TMI-2 variable O & M expenses by at least $6,044,000.

34. The calculation of Met-Ed's TMI-2 decommissioning expense, consistent with the PUC's order in R.I.D. 434, as adjusted for a 40-year depreciable life, would reduce the allowable expense to $67,000.

35. Met-Ed has improperly calculated its TMI-2 capital related expenses.

Proposed Conclusions

1. Met-Ed's base revenues, to be consistent with the use of an average test year, must be reduced by $2,067,000.

2. Met-Ed's base energy expense, to be consistent with the use of an average test year, must be reduced by $1,263,000.

3. Met-Ed's claimed payroll expenses, to be consistent with the use of an average test year, must be reduced by $3,727,000.

4. The Company's other operation and maintenance expense, to be consistent with the use of an average test year, must be reduced by $1,195,000.

5. Met-Ed's actual level of local research and development experienced in 1977 is the maximum reasonable amount that can be allowed in this case.

6. Met-Ed's claim for anticipated contributions to the Liquid Metal Fast Breeder project is speculative and must be disallowed in its entirety.

7. Met-Ed's balance of deferred energy costs must be amortized over the same 10-year period used in the rate recognition of Federal income tax refunds.

8. Met-Ed's $243,000 claim for Uranium Development must be disallowed in its entirety.

9. Met-Ed's gain on reacquired debt must be amortized a $67,000 annual rate and reflected as a reduction to the company's, above the line, operating expenses.

10. The TMI nuclear generating facilities have 40-year depreciable lives and Met-Ed's depreciation expense claim must be reduced by $728,000 to reflect this.

11. Met-Ed's TMI-1 decommissioning expense must be reduced to $90,000.

12. Met-Ed's claimed taxes other than income taxes, to be consistent with the use of an average test year and the use of actual figures where available, must be reduced by $1,372,000.

13. Met-Ed's Federal income tax claim must be increased by $2,147,000 and its State income tax claim must be increased by $456,000.

14. Met-Ed's provision for Federal deferred income tax must be reduced by $20,000 while its claimed provision for State deferred income tax must be increased by $21,000.

15. Met-Ed's net income after taxes must be altered to reflect the $378,000

savings in financing cost associated with GPU double leverage.

16. Met-Ed's net income after taxes must be adjusted to reflect $165,000 in annual savings associated with the reduction of its deferred tax liability.

17. The State income tax savings associated with accelerated depreciation must be flowed-through to present Met-Ed customers.

18. The tax benefits of interest deductions associated with construction work in progress must be flowed-through to present ratepayers.

19. Met-Ed's net income after taxes must be reduced by $690,000, to reflect the results of seven months of actual test year experience.

20. Met-Ed's TMI-2 related variable O & M expenses must be reduced by a minimum of $6,094,000 so as to reflect only the level of these expenses that will actually be incurred in the test year.

21. Met-Ed's TMI-2 decommissioning expense must be reduced to $67,000.

22. As a result of the recommended changes in TMI-2 expenses, various Federal and State income tax adjustments must be made to Met-Ed's TMI-2 related operating income claim. See "OCA Wrap-up Position Schedule 4".

VI. RATE STRUCTURE AND COST OF SERVICE

Proposed Findings and Conclusions

The stipulation entered into by all active parties represents an equitable and responsible resolution of all the rate structure and cost-of-service issues raised in this proceeding, without prejudice to any party's prerogative to raise these or any other specific issues in the next Met-Ed rate case.

VII. JURISDICTIONAL REVENUE ALLOWANCE

Proposed Findings

1. Met-Ed's filing does not separate jurisdictional data from total company data.
2. The Company has proposed rates that would produce $87.2 million in additional revenues on a total Company basis of which $81.6 million, or 93.5%, would be raised from retail customers.
3. The Company has provided no evidentiary support for the derivation of its jurisdictional revenue allocation.
4. The Consumer Advocate has presented a rational retail revenue allocation formula based upon Met-Ed's cost-of-service data, which would raise 85.7% of its recommended total Company revenue requirements from jurisdictional customers.
5. OCA has recommended that Met-Ed be permitted to raise $38,649,000 in additional total revenues.

Proposed Conclusions

1. Met-Ed has failed to sustain its burden of proof regarding its allocation of revenue responsibility to its jurisdictional customers.
2. Met-Ed must file revised Tariffs designed to raise a maximum of $33,122,000, or 85.7%, in additional base revenues from its retail customers.