Duffy

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

CASE NO. ER-78-252

In the matter of Kansas City Power & Light Company for authority to file tariffs increasing rates for electric and utility steam service provided to customers in the Missouri service area of the Company.

APPEARANCES: A. Drue Jennings, David L. Smith, and Lynn M. Snelgrove, Attorneys at Law, 1330 Baltimore Avenue, Kansas City, Missouri 64105, for: Kansas City Power & Light Company.

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and
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and
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REPORT AND ORDER

Introduction

On April 19, 1978, Kansas City Power & Light Company of Kansas City, Missouri (Company), submitted to this Commission revised tariffs reflecting increased rates for electric and steam service provided to customers in the Missouri service area of the Company. The proposed revised rates were designed to increase electric revenues by approximately $41,700,000 annually, and steam revenues by $228,000 annually. The proposed tariffs had a requested effective date of May 20, 1978. On May 12, 1978, the Commission issued an order suspending these tariffs for a period of 120 days beyond May 20, 1978, the requested effective date, to September 17, 1978. On June 6, 1978, the Commission issued its order and notice of hearing wherein it further suspended the proposed tariffs for an additional six months beyond September 17, 1978, to March 17, 1979, unless otherwise ordered by the Commission. The Commission also adopted a schedule of proceedings that required all parties desiring to intervene and participate to file their applications to intervene on or before July 5, 1978. Applications to intervene were filed by Jackson County, Missouri; Kansas City, Missouri; the Kansas City, Missouri Chapter of the National Welfare Rights Organization, Inc. (Welfare Rights); Armco Steel Corporation (Armco); the General Services Administration of the United States Government (GSA); and General Motors Corporation (GM). The Commission granted the status of intervenor to all of these parties; however, in the case of GSA, this was done over the objections of the Company that GSA was late in filing its application to intervene.

The Commission scheduled a local hearing in the Company's service area for the purpose of receiving testimony from customers of the Company concerning the proposed increases. This hearing was held on November 22, 1978, in Kansas City, Missouri. At this hearing approximately 27 people testified. They were generally opposed to the requested rate increase, and some expressed particular concern about its impact on persons with low or fixed incomes. Others expressed concern about Company's labor-management relations. No one complained of any service problems.

A prehearing conference was held from November 13 through 17, 1978, in the Commission's hearing room on the tenth floor of the Jefferson State Office Building, Jefferson City, Missouri. This prehearing conference produced a Hearing Memorandum, Joint Exhibit No. 1. In this Hearing Memorandum the parties clarified the issues on which there was disagreement and established a schedule for various witnesses to testify. Cross-examination of all witnesses began on November 27, 1978, and continued from day to day until its completion on December 15, 1978.

At the close of the hearing, all parties were instructed to file simultaneous briefs; the initial brief was due January 22, 1979, and the reply brief was due January 29, 1979. All parties filed either briefs or suggestions. Also, the parties were requested to submit a proposed report and order by January 29, 1979. GSA, the Public Counsel, the Commission staff, Armco, GM, and the Company submitted either suggested findings of fact or proposed reports and orders in whole or part. These briefs, suggestions, proposed reports and orders, and findings of fact and conclusions of law have been considered by the Commission in reaching its decision on this matter. The parties have waived oral argument but not the reading of the transcript by the entire Commission.

Findings of Fact

After giving due consideration to each issue and contested matter, based upon competent and substantial evidence on the record as a whole, the Commission finds and concludes as follows:

Attrition Allowance

Company has proposed that the Commission recognize an attrition factor as part of or in addition to any increase granted in the amount of $8 million. This allowance is asserted to be necessary to correct erosion in earnings over the time the rates set herein are in effect. This erosion is claimed to be the result of a number of factors which cause operating expense and investment to increase more rapidly than revenues. This is primarily a function of inflation, as well as other causative factors. Particularly, Company points to the deleterious effect of Section 393.135, V.A.M.S. which prohibits the inclusion of CWIP in rate base.

In regard to the latter point concerning CWIP, the Commission notes that the debate on that subject has been permanently terminated by the action of the electorate in passing Proposition No. 1 and the wisdom thereof is no longer a question. In view of this, the Commission will not countenance any proposals which are formulated solely to evade the clear mandate of the people.

We believe, however, that the question of attrition encompasses more than CWIP and is not to be resolved simply by reference to Section 393.135. Even though not always so specifically denominated, attrition as a concept is always in the mind of the Commission in setting rates for the future. This is, indeed, the very function of a rate case...to set rates for the future that will allow Company to earn the return to which it is entitled. We cannot, however, allow ourselves to speculate as to future eventualities. We must reach our decision based upon facts and knowledge presently available. The law recognizes that circumstances change, that future conditions may well adversely affect Company's ability to earn its allowed return, and thus the rates we set in this case are certainly not to be considered permanently embedded, in futuro, regardless of circumstances.

As staff appropriately points out, the question of attrition is addressed, though not by name, in several areas of this case. The concept of annualization, allowed in the treatment of several issues, is one example, as is the out-of-test-year inclusion of the Hawthorn No. 5 precipitators. Without exhaustively setting out every example that might be cited, the Commission concludes that attrition has been considered as much as possible without resorting to pure speculation.

The Commission holds that the rates set herein are proper and will give Company the opportunity to earn the return allowed. The proposed attrition factor is disallowed.

Rate Base

With the exception of Public Counsel, National Welfare Rights Organization and Jackson County, all of the parties hereto agreed to use a year-end (June 30, 1978) rate base adjusted for known and measurable changes to March 17, 1979. The parties not so agreeing reserved the right to establish a contrary position, but none did so.

The Commission has previously accepted the wisdom of using year-end rate base adjusted for known and measurable changes in setting rates for the future. The Commission therefore finds that the rate base for this case shall be based upon the year-end rate base at June 30, 1978, adjusted as required by this Report and Order.

Depreciation Reserve

At the time this matter came on for hearing staff was proposing to increase Company's test year depreciation reserve by an amount reflecting one-half of the annualized test year depreciation expense, based upon year-end plant in service. This proposed increase in depreciation reserve would have the effect of reducing rate base in a like amount.

Following the cross-examination of staff and Company witnesses in regard to this issue, staff stated on the record that it had reconsidered its position in this regard and withdrew its proposed adjustment. With the exception of Public Counsel, all other parties present at that time agreed to the withdrawal of the issue. Intervenor Kansas City has stated in its brief that it continues to support the adjustment originally proposed by staff witness. In its brief, intervenor Jackson County adopts the brief of Public Counsel and the positions taken and conclusions drawn therein.

Public Counsel relates his position on this adjustment to the excess capacity adjustment proposed by intervenor GSA. Simply stated, Public Counsel equates excess capacity with a mismatch of plant to customers to be served. Since in such a situation there exists more plant than is necessary to provide service, as that plant wears out there is no need to replace it. Thus, the argument goes, the depreciation reserve should be increased (and rate base decreased) until such time as the asserted mismatch is corrected and new plant again needs to be built in order to properly serve Company's customers. At this time the process will reverse itself and the flow of funds will be back into rate base.

It is, of course, the purpose of depreciation to recover the cost of plant in equal amounts over the life of the plant. Annually that depreciated amount is taken from plant-in-service because that investment has been recovered in depreciation expense. In the normal course of business, such depreciated plant is being continually replaced in order to maintain service. If not, depreciation expense would remain constant and plant-in-service would gradually decline to zero. The thought behind this proposal is to recognize a short-term lack of need to replace plant until such time as the reserve margin has shrunk to one not considered to be excessive.

Even if we assume capacity to be excessive, we must remember that depreciation is taken as to many capital assets other than generators, and those assets must also be replaced, put back into plant-in-service, to maintain a constant level of service. Public Counsel would require us to assume that no construction will take place, no assets will be replaced as they expire. In fact, Company will be adding plant-in-service, it will be replacing the old and the worn-out. Company will maintain its present level of service as required by the law and to do so must maintain an appropriate construction schedule which is based on the most accurate load projections possible. This being so, the proposed addition to depreciation reserve will not be accepted.

Materials and Supplies

The Public Counsel, supported by intervenors Jackson County and National Welfare Rights Organization, contends that a portion (57%) of Company's materials and supplies "relate to" CWIP, and thus should be excluded from rate base pursuant to the terms of Section 393.135, V.A.M.S:

> Any charge made or demanded by an electrical corporation for service, or in connection therewith, which is based on the costs of construction in progress upon any existing or new facility of the electrical corporation, or any other cost associated with owning, operating, maintaining, or financing any property before it is fully operational and used for service, is unjust and unreasonable, and is prohibited.

Public Counsel's Exhibit 3 shows a thirteen month total of materials charged out to construction of $5,043,070. This is 57 percent of Company's issued materials and supplies during that time period. Applying this percentage to a representative materials and supplies inventory of $8,586,757 (agreed upon between staff and Company), Public Counsel asserts that $4,894,451 should be excluded from rate base.

In Case No. ER-78-29, In the matter of Missouri Public Service Company of Kansas City, Missouri, 7/5/78, this Commission was faced with an identical proposal, at that time a part of staff's case. The allowance was disallowed in that case because there was no evidence to indicate that the materials and supplies in question were distinguishable from the entire inventory of maintenance supplies, and were not specifically identified with any new construction or expansion. The evidence in this case is the same, as must be the result.

The Commission finds that no portion of the materials and supplies inventory of Company are properly chargeable to CWIP, and the proposed adjustment to rate base is disallowed.

Cash Working Capital

There is no dispute that a proper allowance for cash working capital must be recognized by the Commission. Any operating business must have funds available to pay the day-to-day expenses of operation, which funds are not recovered until some point in the future when earned revenues are actually received. The amount necessary for working capital in this matter is of considerable dispute, ranging from the Company's proposal of $14,430,000 to a negative figure of $2,850,000. Staff suggests a negative amount of $1,262,838.

The extreme divergence between these figures is accounted for by the three distinct methodologies proposed by the parties for arriving at the correct amount to be allowed for cash working capital. Company proposed use of the so-called "formula" approach, which is simply a rule of thumb method of determining the revenue lag, while staff chose to make a comprehensive lead-lag study. Intervenor GSA witness Marshall proposed a third alternative.

The formula, or FPC, method has long been used to determine working cash requirements, and has both the advantages and disadvantages of simplicity. While easy to use and not requiring great expenditures of time or expertise, it suffers the broad-brush lack of precision. Accurately referred to as a rule of thumb, the method does no more than provide a gross amount that has, in the past, been accepted as a workable figure for want of anything better.

A lead-lag study, on the other hand, offers much greater precision by specifically identifying the actual revenue and expense lags, which can then be netted to find a much more precise cash working capital requirement. In the instant case, staff's study produced a net lag of 28.14 days. This lag period was then used to compute the working capital amount, against which were offset available customer supplied funds. The staff proposes to offset gross receipts tax collections, property tax collections, the employer's portion of FICA collections, sales tax collections, the payroll reserve, and the injuries and damages reserve. The total of these funds exceeds the working capital requirement based on staff's method by the amount noted above, which, it is asserted, should be deducted from rate base.

While admitting that a properly performed lead-lag study would produce an accurate and precise cash working capital figure, Company's witness criticized staff's study in several respects, the most significant being the failure to include the delay in recovery of depreciation expense. Depreciation expense is a non-cash item. It is not an actual outlay of cash, and the Commission concludes that it is an inappropriate consideration in a cash working capital analysis.

The remainder of Company witness' criticisms were expressed in general and theoretical terms, without providing specific evidence to support Commission findings in regard thereto.

While recognizing that there may be refinements that could be made in this as well as any other lead-lag study, the Commission finds that the analysis presented by staff in this case is a proper method for determining the cash working requirement of Company and that it is supported by competent and substantial evidence. The Commission also finds that the formulistic calculation of the "Working Cash Required" and the "Working Cash Provided" of GSA appears to have considerable merit. The Commission does not intend to say that a lead-lag study is necessarily required in every case, but does hold that where such a study, properly conducted by staff and supported by the evidence, is before it, the Company does not sustain its burden of proof by simply presenting a formulistic determination of working capital requirement. The Commission also recognizes that lead-lag studies require a great deal of staff and Company time and that Company's suggestion that parties resolve the procedures to be employed in conducting such studies for future cases is a valid approach.

The Commission therefore accepts staff's position in regard to this issue.

Fuel Inventory Issue

Staff and Company disagree as to the proper level of coal inventory for ratemaking purposes. Company proposes a 122.3 day coal inventory or 1,676,000 tons while staff believes that a 91.2 day (or approximately one-fourth of a year) inventory or 1,257,500 tons would be sufficient to insure a continuous flow of safe and adequate service to Company's customers. The issue here is what level of coal inventory is necessary to permit Company to use its generating facilities to the maximum level dictated by system load requirements without encountering coal supply problems. The level of coal inventory is never static as Company is continually receiving more coal to augment its coal piles and it is continually burning part of those piles to generate electricity.

Company maintains that larger coal piles are necessary to compensate for the many interruptions which could occur in the process of delivering coal to its generators. These include problems at the mine, problems in transporting coal from mine to generating plant, problems with unloading the coal and problems of moving the coal from the coal pile to the boilers of its generating units. The example offered was the coal strike of 1977-78 which cut off a major source of coal supply and left many utilities with inadequate supplies.

Staff responded with an exhibit (Staff Exhibit No. 11) which indicates the level of coal inventory Company established just prior to the coal strike and the level of coal inventory which staff's recommended level of 91.2 days would have permitted. The exhibit then proceeds, month by month, December 1977 through March 1978, to demonstrate what the coal inventory at each of Company's generating stations would have been, given actual deliveries and actual burn, at the end of the strike if Company had begun the strike with staff's recommended inventory levels. All stations would have still had coal in inventory at the end of the strike except Hawthorn Station which would have been 67,398 tons short. Staff witness did not believe, however, that the shortage indicated for Hawthorn would have resulted in Company being unable to operate that station toward the end of the strike because he claimed that Company would have acted differently during the strike, under the constraint of a lower coal pile. For instance, he testified that Company would probably have restricted interchange sales during that period and possibly saved 100,000 tons of coal as a result. Likewise, coal supplies which were released for the use of coal short utilities by Company would have been retained, thus augmenting Company's supplies by 200,000 tons. Also, Company could have met its system load with more oil-fired generation which has the effect of reducing Company's coal burn.

Finally, it was staff's position that the actual coal inventory carried by Company through the strike was in excess of the inventory allowed by this Commission in Company's last rate case and hence, the cost of these additional inventories has to be carried by Company's investors. However, staff went on to point out that these additional inventories permitted Company to make additional interchange sales at a profit and that this profit represents the return to Company's stockholders for their investment in the additional inventories (Staff Exhibit No. 12).

Company pointed out that the after-strike inventories shown on Staff Exhibit No. 11 would have been unusable because of the "interface problem" (coal at the bottom of a coal pile is hard to burn because of excessive dirt and moisture), that the coal deliveries which Company passed up during the strike would not necessarily be usable at the generating stations where it would be needed under staff's scenario, and that the 15 percent profit which staff calculated as the stockholders' return on the additional coal inventories was a pretax return and that the after-tax return would have been approximately half that amount.

During testimony, the actual level of Company's coal inventory was presented for several points in time and they are as follows:

August, 1977	-- 1,726,795 tons (125.2 days)
November, 1977	-- 1,917,555 tons (139.1 days)
June, 1978	-- 1,232,042 tons (89.4 days)
August, 1978	-- 1,124,463 tons (81.5 days)

August and November of 1977 indicate a build up of inventory in anticipation of the coal strike while June of 1978 indicates a level of inventory influenced by two factors working in opposite directions. The first would be the depletion of inventories because of the strike and the other would be the build up for the summer peaking season. August of 1978 would indicate further depletion because at that point the peaking season is almost over. The Commission is unable to determine whether Company could have made it through the coal strike on staff's recommended inventory levels. However, the Commission can make a judgment that a four-month nationwide coal strike is an abnormal occurrence and that inventory levels which are appropriate in anticipation of such a strike are not reasonable when no strike is anticipated. The June, 1978 inventory level is the most reasonable level presented to the Commission because it does not contain a build up for any anticipated abnormal interruption in coal supply but it does contain the normal buildup for the summer peaking season. Because the specific level probably reflects some abnormal depletion of coal inventories due to the strike, the Commission accepts staff's proposed 91.2 day inventory level as proper. Company is, of course, free to maintain greater inventories if it so desires, but it must make the judgment whether the profits from additional interchange sales warrant the unrecovered costs of the investment in additional inventory levels.

Hawthorn No. 5 Precipitators

Consistent with the use of an historical test period ended June 30, 1978, adjusted for known and measurable changes, Company proposed, and the Staff, Kansas City, Armco and GSA agreed, that air pollution control equipment (precipitators) under construction at the Company's Hawthorn Unit No. 5 generating facility should be included in Missouri's jurisdictional retail electric rate base. For reasons not clearly identified, the Public Counsel, Jackson County and Welfare Rights opposed such treatment. Nowhere has the Public Counsel specified what the Company did that was improper, nor has it suggested what the Company should have done.

Originally, this project was given to four contractors to complete. These contractors employed union workers. When Company's employees went on strike the first of July, 1978, the employees of the contractors walked out as well. After two to three weeks, they gradually came back to work. The contractors' union employees stayed on the job until about the end of October, when they walked out again. At this time the Company tried to persuade these workers to return to work, and upon failing to do so, hired nonunion employees wherever it could find them to finish the job. Many of these employees came from out of state. Company officials believed that it was necessary to do this because the Environmental Protection Agency (EPA) had given Company a December 31 deadline for installation of the precipitators. If the Company failed to have the precipitators in operation by the December 31, 1978, deadline, it would be forced to either cease operation of the Hawthorn No. 5 500 megawatt plant, be fined by the EPA, or secure a variance from the EPA. At the time of the hearing the Company was seeking a variance from the EPA. Company experienced some cost savings from the employment of nonunion workers. On the other hand, Company experienced increased overtime costs as a result of the delays that occurred when the contractors' union employees walked off. Increased costs were also experienced due to sabotage and the necessity of additional security.

Company was able to put the precipitators into service in December 1978. This is well within the time period the parties agreed to in the Hearing Memorandum for known and measurable changes (March 17, 1979).

As of November 30, 1978, the actual amount of booked expenditures on the Hawthorn precipitators was $21,921,078.53. The Staff audited these figures and had no disagreement with them except that it noted that $116,692 of this amount represented property tax, which had not been paid at the time of the audit. The Missouri retail electric portion of the amount the Company initially budgeted for the Hawthorn No. 5 precipitators was $16,236,281.

In the Hearing Memorandum the Company, Staff, Kansas City, Armco and GSA agreed that the full Missouri jurisdictional portion of the cost of the Hawthorn No. 5 precipitators should be included in rate base. The Company, Staff, Armco and GSA also agreed that this amount should be the actual cost of the equipment as verified by Staff audit. This figure was to be supplied in a late-filed exhibit. In the Hearing Memorandum the Public Counsel, Jackson County and Welfare Rights opposed including in rate base the pollution control equipment at Hawthorn No. 5. However, the Hearing Memorandum did not state that they had any objection to the receipt of the late-filed exhibit. At the hearing, however, the Public Counsel and Welfare Rights objected to the receipt of the late-filed exhibit because they were unable to cross-examine pertaining to it. However, the witnesses sponsoring the late-filed exhibit were presented for cross-examination by the Public Counsel, Welfare Rights, or anyone else, at the hearing. On January 29, 1979, Company filed its late-filed exhibit. Neither the Public Counsel nor Welfare Rights objected to the filing of the late-filed exhibit at that time, or when it was offered and admitted at the close of the hearing. Therefore, we must presume that they do not object to our considering this exhibit. None of the parties who objected to the inclusion of the Hawthorn No. 5 precipitators in rate base made any mention of it in the briefs they filed after the hearing. Therefore, we find that the total cost of the construction and installation of precipators at Hawthorn Unit No. 5 was $24,903,256.87, of which $16,806,030.14 should be allocated to Missouri electric retail service rate base, and this figure is only slightly more than the original amount budgeted by Company of $16,236,281.

Customer Deposits

The staff proposed to reduce Company's rate base by $1,984,592 representing the Missouri allocated customer deposits retained by Company as bill payment security. As a companion adjustment, the staff recognized the associated interest expense of $119,076 in the Company's cost of service. Company pays interest of six percent on such deposits under Commission direction.

There are three alternative means of accounting for customer deposits in the ratemaking context: (i) the staff proposal of rate base offsets; (ii) using customer deposit interest costs in calculating the Company's AFDC rate; and (iii) treating customer deposits as lower cost capital by inclusion in the Company's capital structure.[3]

We adopt the second alternative, that is, that interest should be capitalized as AFDC. Under the staff's approach, if the level of deposits falls because of 4 CSR 240-13, it will build into the rates set by this case cheaper money that would not be available when the rates go into effect. Those deposits that have been on file for a longer period of time are more likely to have been used to support present plant in service, whereas the more recent deposits are more likely to be used in present and future construction. Because of 4 CSR 240-13.030(4), the level of older deposits is likely to fall in relation to the level of new deposits. This undermines an assumption in the staff's approach, which is, that the deposits in question have been used to support present plant in service. We reject the approach proposed by the Company, number (iii), because where rate base is less than the capital structure, as is the case here, some of the funds represented by the deposits could go to projects involving future construction on utility projects or other projects on which it is improper for the Company to earn a rate of return insofar as this rate case is concerned. Both method (i) and (iii) have their strong points and weaknesses, as explained in the testimony of staff witness Dittmer. However, we find that the second approach is a reasonable solution to the problem and avoids many of the pitfalls associated with the first and third approach.

[3]Company did not recognize customer deposits anywhere in its filing, but is not opposed to capital structure recognition, or to AFDC calculation recognition, preferring, however, the former. In accordance with the Commission's Minimum Filing Requirements and to prior discussions with the Commission staff, Company was directed not to recognize customer deposits in the capital structure for purposes of this case.

Accrued Interest and Dividends

Intervenor GSA suggested a further offset to rate base of $8,059,000, "...representing the sum of an average amount collected (from the ratepayers) for accrued preferred dividends of $2,797,000, and an average amount collected for accrued interest on bonds of $5,262,000." (Parentheses added) GSA brief, page 13. This is analogous to commonly accepted offsets to rate base in cash working capital analyses, such as funds collected for payment of various taxes. Public Counsel supports this position.

The fallacy inherent in this position is readily apparent from its very statement noted above, particularly the use of the phrase "collected for". This attempted earmarking simply ignores reality and the principles of utility accounting. It must be admitted that Company sets aside certain sums to pay these accruals and that there may well be some lag between the time they are set aside and the time they are expended. These facts alone do not provide the answer, however; we must go further and inquire as to the source of the funds so set aside. The principle underlying the accepted offsets noted earlier is the fact that the funds are customer-supplied funds rather than shareholder-supplied. Simple equity demands that shareholders should not receive the benefit, a windfall if you will, of the free use of ratepayer-supplied funds, nor vice versa. The question then is simply stated by inquiring as to whose funds are used to pay accrued interest on bonds and dividends on preferred stock.

The source of these funds is and must be the earnings of the Company. Those funds belong to the shareholders of the Company, to do with as they see fit through their elected board of directors and management. One of the things they have seen fit to do with their money is to pay interest on their debt, another is to provide a return for a certain, preferred, group of shareholders. These funds are to be clearly distinguished from funds paid as part of the rate for the sole purpose of paying taxes, in which case the Company is simply a conduit for the funds. In the latter instance, the Company is in effect using someone else's funds the longer it can keep them in its hands. It is this windfall that an offset is designed to reach.

The above greatly over-simplified analysis would appear to be obvious, but intervenor's stance seems to be that anytime Company has an accumulation of funds in its hands, regardless of source, those funds must be used to offset rate base. Carrying this to its logical extreme, all retained earnings should be deducted from rate base. This simply is not so.

The Commission notes that it recently refused to allow an offset to cash working capital for accrued interest, Case No. ER-78-29, 7/5/78, and has not been persuaded to change its opinion. Intervenor GSA's proposed adjustment will not be allowed.

Excess Capacity Issue

Intervenor GSA and Public Counsel took the position that Company has excess capacity which the Commission should discourage by making a downward adjustment in Company's overall revenue requirement. Intervenor GSA witness began his analysis of this issue by accepting the 20 percent reserve margin which this Commission found reasonable in Company's last rate case before this Commission. He then began with Company's actual 1978 summer peak of 2097 megawatts and adjusted that downward to 2070 megawatts to take into account the probable effect of the Armco curtailment agreement which became effective in October, 1978. This agreement permits Company to interrupt its service to Armco under specific conditions during peak hours and has the potential effect of reducing Company's system peak. Since the agreement has not been in effect during a summer peaking season, it is not certain what effect it will have on Company's system peak, but this witness assumed that Armco's total controllable load would have been 144 megawatts rather than the actual load of 171 megawatts at 1978 system peak and further assumed that all but 60 megawatts of that 144 megawatts would be interruptible under the terms of the agreement. In essence, he took the 60 megawatts which cannot be interrupted under the agreement and subtracted that from Armco's actual usage of 171 megawatts and the resulting 111 megawatts was then used to reduce Company's actual system peak of 2097 megawatts to 1986 megawatts (GSA Exhibit 1A, JRL-3).

Next, he looked at Company's actual installed capacity of 2560 megawatts and added 95 megawatts of hydro capacity which Company purchases from the Southwest Power Administration to give a total adjusted capacity of 2655 megawatts. This figure he compared to his adjusted peak demand of 1986, increased to include a 20 percent reserve margin or 2383 megawatts (1986 times 1.20%), and concluded that in 1978 Company had excess capacity in the amount of 272 megawatts (2655 megawatts minus 2383 megawatts). He performed a similar analysis for 1979 and concluded that Company would have 82 megawatts of excess capacity given the loss of the 95 megawatts of hydro capacity as Company's entitlement to this capacity expires prior to the 1979 peaking season, given a four percent growth in its adjusted 1978 peak demand and given an increase in the amount of Armco's curtailment (GSA Exhibit 1A, JRL-2). Finally, he used the excess capacity figures derived above to arrive at a reduction in revenue requirement by multiplying the amount of excess capacity in both 1978 and 1979 by the fixed charge carrying rate set forth in the Report and Order in Company's last rate case (Case No. ER-77-118). The results were $5,876,140 for 1978 and $1,771,480 for 1979 with the former number being most representative of test year conditions while the latter number would be more representative of conditions during the first year in which rates resulting from the instant case will be in effect.

It was the position of this witness and of Public Counsel that Company does have excess capacity and that the cost of this capacity should be borne by Company's investors rather than Company's ratepayers. Hence, it would be necessary for the Commission to eliminate the cost of this excess capacity in setting rates. Put another way, they offered the position that Company's ratepayers should pay for only a certain amount of reserve capacity which is the amount necessary to insure continuous service during peak periods given the possibility of major outages on some of Company's generating facilities, but limited by Company's participation in pooling arrangements whereby a pool member can draw upon the capacity of other members in the event of outages. Intervenor GSA witness testified that this reserve margin should be within a range of 15 to 20 percent of peak demand.

Any capacity over and above this margin, he believes, only permits the utility to engage in additional interchange sales to other utilities and does not significantly enhance system reliability. Further, the ability to make additional interchange sales results in interchange profits which flow to the benefit of Company's investors even though the costs of this excess capacity are being carried by Company's ratepayers.

The Commission is unable to accept the position that Company has "excess capacity" at this time. The purpose of reserve capacity is twofold in that reserve capacity must cover not only any deficiencies in capacity which are caused by system outages and which cannot be made up by pool reserves, but also any variations in actual peak load growth over forecasted load growth. Construction of major generating facilities takes in the neighborhood of ten years and hence, the electric utility's planning horizon must be at least ten years.

This means that decisions to build capacity today must be based upon Company's estimate of what its load will be many years into the future, and likewise, the capacity being constructed today is the result of decisions made several years ago. A load forecast which misses the mark by as little as one percent can have dramatic consequences when compounded five, ten, fifteen years into the future.

Company's current load growth projection is four percent through 1981 and five percent thereafter. This represents a considerable reduction in the projections which Company was making in the early years of this decade when historical evidence could support projections of six percent or greater. It is necessary for the Commission to determine whether the Company's generation expansion plans for this decade and into the next decade were based upon reasonable assumptions at the time they were developed and/or whether the Company was actually planning to build excess capacity in order to speculate on the interchange market.

Beginning in 1970, Company had experienced a compound growth rate in its peak load over the prior decade of 7.2 percent per annum (Company Exhibit No. 3, Schedule 3). Had this rate of growth continued unabated into the 1970's, Company's peak load in 1978 would have been 2614 megawatts compared to Company's actual adjusted capacity of 2655 (Company Exhibit No. 32). In other words, Company would have had a reserve of 41 megawatts and a reserve margin of less than two percent for 1978. Indeed, through 1974, Company would have had little reason to reduce its forecast significantly because it actually experienced a compound growth in peak of 6.2 percent from 1970 through 1974.

It was only after 1974 when a variety of factors, including air-conditioning saturation, an economic recession following the Arab oil embargo, and probably the price elasticity effects of higher electric rates, caused a break in historical growth patterns. The Commission observes that load forecasting is still an art and even the most sophisticated forecasting models will not reveal with any degree of certainty what future growth patterns will be. However, even assuming that Company had been able to precisely predict its 1978 peak of 2097 megawatts in the early or mid seventies, and then went on the assumption that growth beyond 1978 would continue at an average compound rate of four percent thereafter, Company's peak load forecast would have been as follows:

1978 -- 2097 megawatts
1979 -- 2181 megawatts
1980 -- 2268 megawatts
1981 -- 2359 megawatts
1982 -- 2453 megawatts

Also, Company planners would have had no way of knowing at that time that the Armco agreement would ever come to pass and the same planners would have been working on the assumption that Company's entitlement to Iatan Number One's 650 megawatts would have been the original two-thirds percent or 436 megawatts. Hence, a reasonable forecast at that time would be as follows:

	1978	1979	1980	1981	1982
Peak	2097	2181	2268	2359	2453
Capacity	2560	2560	2996	2996	2966
Capacity Purchases	95	0	0	0	0
Adjusted Capacity	2655	2560	2996	2996	2966
Reserve Megawatts	558	379	728	637	513
Reserve Margin	26.6%	17.4%	32.1%	27.0%	20.9%

A rational planner, looking at these numbers and convinced that a 20 percent reserve margin is the minimum necessary to cover both outages and load growth estimates which turned out to be too low, would have made the decision to add additional capacity in 1980 and hopefully sell off a part of it on a year-to-year basis until system load growth picked up the slack. This, in essence, is what Company has done by planning to bring Iatan One on line in 1980 and by procuring participation sales of 150 megawatts in 1980 and 300 megawatts in 1981. These sales to Associated Electric Cooperative would reduce the reserve megawatts in 1980 to 578 and the reserve margin to 25.5 percent while reducing the reserve megawatts in 1981 to 337 and the reserve margin to 14.3 percent.

Though the Commission accepts the general proposition that utilities will have to learn to live with smaller reserve margins in the future because the cost of additional capacity has become so expensive and that utilities will have to plan on the basis of a 15 percent reserve margin increasing to between 20 percent and 25 percent when a new unit of capacity is added, then working down to approximately 15 percent in the year before a new unit is scheduled to come on line, the decisions to build the capacity which Company has recently added and which Company is currently constructing were made several years ago when different assumptions prevailed. Indeed, the Armco agreement indicates that Company is responding to the problem of high cost capacity additions and is willing to seek alternatives which will permit Company to postpone further capacity additions as long as possible.

Finally, the Commission is unable to accept Intervenor GSA's dichotomy of interest between Company's ratepayers and Company's investors whereby a dollar out of the ratepayers' pocket is viewed as a dollar in the pocket of the investors and vice versa. Essentially, a utility's rates must cover all of its costs including its cost of capital. It makes little difference to an investor whether Company's earnings come from retail sales, wholesale sales or interchange sales. If earnings are insufficient, the investors will simply bid down the price of Company's stock, and hence, shift the cost burden back to Company's ratepayers. Both ratepayer and investor would be better off if Company could meet its customers' needs with as little capacity as possible. However, both would be considerably worse off if Company were unable to meet its customer needs. Given current forecasting, planning and reliability estimating techniques, it is impossible for any utility to precisely determine the optimum capacity level and the optimum capacity mix at any point in time ten, twenty years into the future also given that construction lead times are lengthening and demand growth patterns are changing. Hence, all parties must make the tradeoffs between the costs of additional capacity against the costs of insufficient capacity.

If this Commission were to intervene at some point in Company's overall planning and construction process and declare that Company has "excess capacity" at that point in time, this would indeed dichotomize the interests of investor and ratepayer. Once the costs of that capacity have been removed from rates, the interest of the investor, who would then be carrying the entire cost of the capacity, would be to sell the power out of that capacity at the highest price possible and keep the proceeds. When the day finally came when Company needed all of its capacity to meet the needs of its customers, the investor would be most reluctant to return the "excess capacity" to Company's rate base at original cost. Since the replacement cost of that capacity would be considerably higher than original cost, the investor most likely would only be willing to "sell" this excess capacity back to the Company at reproduction cost less depreciation. The Commission is unwilling to accept the possibility that such a situation could occur particularly when the Commission is unable to conclude that Company's planning process was and is based upon unreasonable assumptions or that Company deliberately set out to build unneeded capacity. Hence, the Commission will not make an excess capacity adjustment in the instant case.

Weather Adjustment

Upon the contention that the weather was abnormally severe during a portion of the test year (winter of 1977-78), the Company proposes to adjust its test year revenues in the negative amount of $1,032,098. The other parties to this case objected to the adjustment.

This proposed adjustment is based upon the premise that kwh usage is temperature sensitive; that is, that usage will vary in relation to temperatures that vary from the norm. Pointing out that the winter of 1977-78 was the most severe in the last 41 years and thus a variation from the norm, Company attempted to analyze the historical kwh relationship to temperature in order to arrive at an amount that could be said to be abnormally high revenue caused by the severe winter. Using statistical techniques of analysis, Company arrived at an equation it asserts best represents the mechanics of the kwh usage/temperature relationship. The formula provided a mwh figure to which dollar values were attached, with a further adjustment for fuel adjustment revenue.

The staff has agreed throughout with the concept of a weather adjustment, recognizing some relationship between temperature variation and kwh usage. Staff does, however, oppose the adjustment proposed by Company. Staff's opposition to the adjustment is based upon its analysis of the procedure used by Company to arrive at the amount of its adjustment. Staff's witness thoroughly examined Company's procedure and reached the conclusion that its results are unreliable because the procedure itself is statistically unsound. Staff witness' testimony demonstrated the statistical deficiencies in the procedure.

The Commission notes that the staff did not prepare an analysis of the weather effect in response to the one presented by Company even though it accepted the concept of a weather adjustment. The Commission further notes, however, that the Company, not the staff, has the burden of proof as to this adjustment. This being so, the Commission finds that the evidence does not support the reliability of the results from Company's equation and in fact, as shown by the testimony of staff's witness, the greater weight of the evidence shows Company's analysis to be statistically deficient. Company has not met its burden of proof as to this adjustment and it is denied.

The Commission does not in the slightest intend to deny the concept of a weather adjustment, but does hold that a proponent of such will be held to a high standard of proof before a deviation from the actual test year figures will be accepted.

Interchange

There is considerable disagreement between Company, staff and intervenor GSA as to the proper level of interchange activity which should be used for ratemaking purposes. The problem developed because of several unusual events during the test year which all parties recognized would render the actual test year results as unrepresentative of normal interchange activities. These were the coal strike of 1977-78 and a participation sale by Company of 200 megawatts to the Nebraska Public Power District (NPPD) through the Omaha Public Power Distric (OPPD) which has since expired. Both of these events resulted in abnormally high interchange sales and are not expected to reoccur after the test year. Company further claimed that recent capacity additions by utilities who previously bought significant amounts of interchange power from Company will further limit the market for interchange power sales.

The issue is complicated by the complex nature of interchange transactions in that Company can buy power for its own use or for resale to another utility and it can sell power either from its own generation or from power purchased from other utilities. Company based its rate request on its post test year budget for interchange sales, both that portion Company anticipates will be produced by Company's own generation and that portion Company anticipates will come from purchases from other utilities. However, for purchases intended for Company use, Company selected the actual megawatt hours purchased by Company for the test year period.

Staff and intervenor GSA took the position that Company's budgeted figures were an unrealistic estimate of what past test year interchange sales would be and that Company has significantly understated the amount of those sales. However, as far as power purchased for Company's own use, staff was willing to accept a level of megawatt hours very close to Company's budget, but considerably less than test year actual results. The two issues of interchange sales and purchases for Company's own use will be treated separately.

A. Interchange Sales. As mentioned above, interchange sales consist of two components--sales produced from Company's generation and sales made from power purchases from other utilities. Company's normalized megawatt hours for the former component is 85,000 mwh (Company Exhibit No. 22, Schedule 5) while the normalized or budgeted figure for the latter component must be imputed as the number does not appear in either the testimony or exhibits. However, Company's budget does indicate that 72.13 percent of the power purchased will be for Company's use and Company expects to use 325,131 megawatt hours in the post test period. Therefore, the total budgeted purchases should be in the neighborhood of 451,000 mwh and, after the 325,000 mwh for Company's use are subtracted, the remaining megawatt hours of 126,000 would have to be for resale. This would yield total interchange sales exclusive of hydro power of 211,000 mwh.

Staff approached the problem differently as staff went back to the most recent 12-month period in Company's operating experience which did not include the coal strike, i.e. the 12 months ended November 30, 1977. Company's total interchange sales for that period were 1,060,522 mwh but the OPPD participation sale was also in effect during that period so staff removed the megawatt hours attributable to that sale or 359,305 mwh as well as the sales made from hydro power of 181,849 mwh to arrive at an adjusted interchange sales figure of 519,368 mwh. Next, staff looked at the historical percentage breakdown of interchange sales. In other words, what percentage of Company's interchange sales were Company generated and what percentage were purchases for resale. Company's budgeted breakdown for the post test year is 55.56 percent self generated and 44.44 percent purchases for resale and staff decided that this breakdown was consistent with historical experience. Hence, of the 519,368 total megawatt hours of interchange sales, staff attributes 288,538 megawatt hours to Company generated interchange sales or 55.56 percent of 519,368 megawatt hours. These hours were costed on the basis of Company's actual test year interchange fuel mix (plus a provision for variable operations and maintenance expense) and priced by the actual test year margin between fuel cost and price.

After the 288,538 megawatt hours have been removed from total interchange sales of 519,368 megawatt hours, the remaining 230,830 megawatt hours were attributed to purchases for resale and these hours were costed using Company's budgeted purchase cost and priced by Company's budget sales margin of 15.53 percent.

Intervenor GSA made an adjustment only to the interchange sales from Company's own generation. GSA witness simply took all of the interchange sales for the test period and reduced the sales for those months encompassed by the coal strike by one-half while Company objected to both approaches as not being reflective of future interchange market conditions. Company argued that the 12 months ending November 30, 1977 used by staff also included two abnormal sales to Kansas Power and Light and Missouri Public Service Company (later determined to total 178,602 megawatt hours) which would render that period unrepresentative of future conditions. Company argued that the GSA adjustment was not adequate to normalize the effects of the OPPD sales and the interchange sales generated by the coal strike.

The Commission finds that staff offered the most acceptable alternative both for determining a representative level of interchange megawatt hour sales and for pricing and costing those sales. Company's test year interchange sales were in excess of 1,000,000 megawatt hours and the Commission does not expect Company to repeat that performance in the future, particularly in the absence of another nationwide coal strike and a major participation sale to another utility. However, the Commission cannot accept that Company's sales will fall to a level around 200,000 megawatt hours as projected by Company's budget. Staff's estimate in the 500,000 megawatt hour range appears to be more reasonable, even taking into account the energy sales to Kansas Power and Light and Missouri Public Service which were included in staff's calculations. Company's budget appears to reflect a "normal" level of interchange sales only on the assumption that all of the interconnected utilities experience no generating problems, which assumption this Commission cannot accept.

B. Purchases for Company's Use. As stated above, staff based its adjustment related to this issue on Company's budgeted figures. More specifically, staff took the breakdown for total purchases between purchases for Company's use and purchases for resale of 42.58 percent and 57.42 percent which Company actually experienced for the six months ended June 30, 1978. Since staff had already normalized purchases for resale at 230,830 megawatt hours, staff simply assumed that this number would be 57.42 percent of total purchases and, hence, total purchases would be 402,001 megawatt hours. Subtracting the purchases for resale of 230,830 megawatt hours from the total leaves 171,171 megawatt hours which staff set as the level of Company purchases for its own use in the post test year period.

Company actually purchased 325,131 megawatt hours for its own use during the test year even though its budget, prepared during the test year, shows a purchase level for Company's own use of 176,000 megawatt hours. Company claimed the actual test year megawatt hours should be adopted as reflective of future events while staff argued that its figure of 171,171 megawatt hours was in line with Company's budget. The Commission has already rejected Company's budget as a basis for determining future interchange sales and will do so on this issue also, as it can find no reason to assume that Company's purchases for its own use will decline in the post test year period below its purchases in the test year itself. Company's load will most probably grow during the post test year period and Company witnesses testified that several interconnecting utilities have added generating capacity recently. This could enhance Company's opportunity to purchase power for its own use rather than generate the power internally at a higher cost. Hence, the Commission accepts Company's position on this issue.

Clearing Account Adjustment

Pursuant to the Uniform System of Accounts, Company maintains a clearing account, the purpose of which is to accumulate the costs of numerous small expenditures which will later be charged out to permanent accounts. Such an account may contain items relating to a future period and the balance is carried forward year to year. Intervenor GSA asserts that an adjustment to test year operating expense should be made because the amount in this account carried forward into the test year substantially exceeds the amount incurred during the test year and carried forward to the next year. (June 30, 1977: $1,051,893; June 30, 1978: $165,174.) From year-end annual reports to the FERC for the four years immediately preceding test year, it can be inferred that the expense carried forward into test year is indeed unusually high. GSA originally proposed an adjustment in the amount of $429,000.

In rebuttal, Company witness provided an exhibit (Company Exhibit 42), which is a thorough examination of the $1,051,893 carry forward, with the various adjustments to that figure already made by the Company and staff. Following that exhibit through to the end, one finds a final net figure of $112,644 which, "...might be questioned as to whether the Company's test year expenses were overstated...," testimony of Company witness, Tr. 2355. Company witness did not recognize that figure as a proper adjustment, however, primarily because of its small amount in relation to overall Company operations.

In its brief filed with this Commission, intervenor GSA has accepted the above figure of $112,644 as the proper adjustment amount.

The Commission finds that the expense amount in the clearing account carried into the test year was unusually large and does not accurately reflect the clearing account balance that may be expected to exist in the future. In view of the concurrence of the proponent of this adjustment, the Commission finds that the $112,644 reflected by Company Exhibit 42 is the proper amount of the adjustment. Accordingly, test year operating expense will be reduced by that amount.

Montrose Inventory Adjustment

Public Counsel takes issue with an adjustment to test year expenses made by Company and staff. The effect of this adjustment is to increase test year expenses by $301,127 to reflect the result of an accounting change made prior to the test year by Company. The change involved the addition to inventory of the costs of certain materials previously expensed and subtracting those costs from production maintenance expense. The net effect is an understatement of test year operating expense in the amount noted above. Public Counsel takes the position that this amount, due to the requirements of double entry accounting practice, must then be subtracted from inventory, i.e., from rate base.

The Commission faced this same question in Company's most recent rate case, ER-77-118, 11/1/77, and there held the adjustment to be proper. The factual situation is the same here as previously, in that the accounting change occurred prior to the test year and no items were improperly expensed during the test year. At the time the change was made the principles of double entry accounting were, of course, observed.

The adjustment as made by Company and staff provides the proper basis for determination of the level of expenses likely to be experienced by Company in the future, which is the proper consideration for the Commission to have in mind in setting rates for the future. The proposed adjustment of Public Counsel is therefore not accepted.

Cost of Oil Burned

At the time the Hearing Memorandum was prepared, Public Counsel reserved the right to inquire into and establish a position regarding the price of oil burned as a part of Company's fuel expenses. At all times relevant hereto the Company and staff have agreed to price oil for inventory at a year-to-date average to December 31, 1978; and for operating expense (oil burned) at replacement cost on December 31, 1978.

Public Counsel called a Company witness as an adverse witness and through him sought the admission of Public Counsel Exhibit 8, purporting to show the fluctuations in the cost of oil burned in the months of November, 1977, through October, 1978. Additionally, Public Counsel Exhibit 9 was offered, asserted to show oil costs over a period from 1974 to 1978. No other evidence was offered by Public Counsel and no other party asserted a position in regard to this issue.

While Public Counsel took advantage of his reserved right to inquire into oil prices, he did not offer sufficient evidence to sustain his position. The agreed upon treatment of oil prices by Company and staff appears reasonable to the Commission and we will accept that treatment for the purpose of this case.

Normalization of Additional FERC 530-B Items

Company proposes to normalize its test year pension costs, payroll taxes and property taxes totaling $1,595,069. Staff, Public Counsel and intervenor GSA oppose any additional normalization and recommended instead that these items continue to be flowed through to Company's customers for ratemaking purposes. Staff further recommends that the flow through adjustment be based on annualized amounts for these three items which would increase them to $2,355,746 and, hence, reduce Company's tax liability by $361,246 while Public Counsel recommends that the Commission require Company to flow through state deferred taxes which the Commission previously permitted Company to normalize.

The Commission has considered the issue of "normalization" versus flow through in a number of previous cases. For instance, in Case No. ER-77-154 involving Union Electric Company, the Commission found in the Report and Order in that case:

> The Commission has in the past considered the merits of tax normalization versus flow-through treatment on a case-by-case basis. Initially, the problem arises because every dollar of a given company which is recognized as an expense by the taxing authorities in a given year also represents a tax savings of fifty cents--the approximate combined state and federal tax rate being 50 percent. In other words, the taxing authorities will tax 50 percent of a company's net income so every dollar of expense will reduce "net income" by a dollar and, hence, reduce that company's tax liability by fifty cents.
>
> The problem is complicated by the fact that the taxing authorities recognize certain expenses which the Commission does not so, even though the Commission does not permit the Company to recover the expense itself in rates, the question remains: "What about the tax benefit associated with the expense?"
>
> An example would be certain expenditures incurred in connection with a construction program. The taxing authorities recognize them as expenses in the year in which they occur while the Commission insists that they be capitalized and written off over a period of years. Utilities are permitted to recover their taxes through the rates they charge and, thus, the proper tax expense must be decided by this Commission.
>
> When the Commission decides to "normalize" taxes, it is proceeding upon the assumption that the tax benefits of an expense should follow the recovery of that expense through company's rates. When it "flows through" tax benefits, it is proceeding on the assumption that the tax benefits of an expense should be used to reduce rates in the year in which the utility receives them even though the associated expense will not be recovered until some time in the future. Under the former procedure, expenses and taxes are calculated consistently. If the expenditure is not recognized as an expense by the Commission until a future date, then the associated benefit is not recognized until the expense is recognized. Under the latter approach, only the actual tax liability of a utility is recognized by the Commission as includable in rates.

> Not all utilities under the jurisdiction of this Commission have been granted permission to fully normalize their taxes. As mentioned above, this has been handled on a case-by-case basis with the general direction being toward full normalization but with other considerations such as a utility's cash flow situation weighing upon the final decision of which taxes should be normalized and which would not be normalized.

Also, in the Company's last rate case (Case No. ER-77-118), when the same issue was presented, the Commission found that:

> The criteria which the Commission applies in determining this issue have been explained in detail in several prior Commission Reports and Orders. The test applied in the past, and which the Commission reaffirms, is whether or not the utility has proven that its needs in the areas of cash flow, reduced external financing, improved interest coverage, and financial stability justify the Commission ordering current ratepayers to pay higher rates in the immediate future with the possibility of future customers not having to absorb higher rates in the future than would result if the Commission declines to allow full normalization.

The Commission reaffirms, for the purposes of this case, its position in the cases set forth above with respect to those items which Company is currently authorized to normalize, including state deferred taxes; but the question remains whether the Commission should reverse its past practice of requiring Company to flow through the items at issue and permit Company to normalize them in the future. Hence, the Commission must determine whether or not Company meets the financial stability test included in the Report and Order in Case No. ER-77-118. This test involves an examination of Company's test year coverage ratios, cash flow and the amount of extermal financing required to meet Company's construction expenditures.

Company Exhibit No. 31, schedule 4, shows Company's test year coverage ratios for bonds and preferred stock of 2.53 and 1.54 respectively. Though the coverage ratio of 2.53 for first mortgage bonds would permit Company to issue additional bonds, the coverage requirement for preferred stock of 1.50 would not permit any significant sale of additional preferred stock because the additional dividends resulting from the sale would drive the test year coverage ratio below 1.5. Likewise, Company Exhibit No. 31, schedule 2, indicates that only 20.7 percent of Company's construction expenditures and debt refundings during the test year were provided by internally generated funds. Company witness testified that the utility industry on average meets 35 percent to 40 percent of its construction expenditures with internally generated funds with the balance represented by external funds such as new issues of bonds, preferred stock and common stock.

The Commission finds that test year results do demonstrate that Company has a severe cash flow problem. During a period of heavy construction expenditures, the Commission would expect the percentage of construction expenditures provided by internally generated funds to decline from the 40 percent norm, but a decline below 30 percent must be viewed as a serious impediment to continuing Company's construction program, at least at budgeted levels. Staff raised the question whether normalization of the items at issue would significantly improve either Company's cash flow or its coverage ratios. However, the financial stability test as applied to this issue does not require normalization to solve a Company's cash flow problems, only alleviate them. Therefore, the Commission finds that Company should be allowed to normalize the pension costs, payroll and property taxes which it capitalizes on its books. The Commission also finds that a corresponding offset to rate base in the amount of one-half of the tax liability associated with the items at issue should also be made on the basis that one-half of that liability represents the average additions to rate base which could be funded by the proceeds from this issue during the first year in which new rates are in effect.

Rate of Return

Company, staff and intervenor GSA all presented testimony on this issue. For the sake of clarity, it would be appropriate to separate this issue into its component parts.

A. Capital Structure. Staff and intervenor GSA selected Company's actual capital structure as of test year end or June 30, 1978 as the appropriate structure for rate-making purposes. This structure is as follows:

Long-term debt	51.0%
Preferred stock	13.1%
Common equity	35.9%
	100.0%

Company witness instead selected a "balanced" capital structure with the following proportions of debt, preferred and equity:

Long-term debt	51.3%
Preferred stock	11.8%
Common equity	36.9%
	100.0%

Company witness testified that his "balanced" structure was proper for rate-making purposes because it reflects Company's best judgment as to the optimal capital structure which will permit financial flexibility and assist Company to maintain its current bond ratings. The financial flexibility argument concerns the proportions of debt and preferred stock in the capital structure. If debt is 52 percent or greater, or if preferred stock is 15 percent or greater, it would be difficult for Company to sell a disproportionate amount of either in an financing cycle even though the cost of either instrument might be particularly favorable during that cycle. Likewise, a high percentage of equity in the capital structure would permit Company to sell a disproportionately low amount of common stock during a financial cycle if the marketprice of that stock was considerably beneath book value. Company Exhibit No. 31, schedule 7, lists 30 electric utilities with AA bond ratings and shows that the average capital structure for these companies contain lower proportions of debt and higher proportions of equity than Company's "balanced" structure which led Company witness to conclude that his balanced structure was one of the factors necessary for Company to maintain its Aa rating with Moody's.

Further, it was the position of Company witness that it was Company's policy to achieve a "balanced" capital structure through future financing cycles and that selecting a capital structure for any given point in time such as June 30, 1978, would not necessarily result in a capital structure which would be representative of Company's policy. The Commission has, from time to time, selected capital structures other than the specific capital structure which existed at test year end because the Commission concluded that the specific capital structure would not be representative of the typical capital structure which the company involved would actually face during future financing cycles. However, in the instant case, Company did not demonstrate that the capital structure as of June 30, 1978 would not be representative of future conditions or that its "balanced" structure would be more representative of those conditions. All the Commission derived from Company's testimony was that Company would like to have a balanced capitalization, not that it would, in fact, achieve this goal. The Commission further observes that Company's June 30, 1978 structure provides almost as much financial flexibility as Company's proposed structure. Exhibit No. 31, schedule 7, also indicates that 14 of the 30 companies listed had equity ratios below Company's balanced ratio and 12 companies had equity ratios below Company's actual June 30, 1978 ratio, leading the Commission to believe that a "balanced" capital structure is not, in and of itself, the necessary condition for maintaining an Aa bond rating. Hence, the Commission finds that Company's actual capital structure as of June 30, 1978, is the proper structure for rate-making purposes.

B. The Cost of Common Equity. Each of the witnesses testifying on this issue recommended a different market-to-book (M/B) ratio as the proper target to use when setting the cost of common equity. Staff witness selected an M/B ratio of 1.04 as proper based upon Staff Exhibit No. 2, schedule 15, which sets forth the floatation costs of Company's last five common stock offerings as well as the percentage of these costs to Company's book value at the time of sale. Floatation costs include underwriters' compensation for selling the stock along with the issuing costs such as taxes and fees. These costs are a necessary part of selling a new issue of common stock and they reduce Company's net proceeds from the sale. Hence, if a company's stock is priced and sold exactly at book value, company's net proceeds will be less and company's stockholders equity will be diluted. Staff maintained that the purpose of an M/B ratio of 1.04 is to permit Company to sell common stock at that ratio and still receive net proceeds equal to book value after all floatation costs have been paid. Staff Exhibit No. 2, schedule 15, shows that Company's floatation costs as a percentage of book value have varied from 2.53 percent to 3.66 percent over its last five issues and because this percentage will vary with the size of the issue, staff witnesses concluded that an M/B ratio of 1.04 should cover all of Company's floatation costs for future issues. (For instance, the percentage of floatation costs to book value for Company's last issue was 2.64 percent, but Company issued 1,200,000 shares which held the percentage down. If, for instance, Company had sold only 800,000 shares, the percentage of floatation costs to book value would have been 3.96 percent). Likewise, intervenor GSA selected as his target M/B ratio 1.035 based upon the average floatation costs of 37 new issues of common stock for various utilities during the first half of 1978.

Company witness selected a target M/B ratio of 1.10 to cover not only floatation costs but market pressure as well. Market pressure is a concept which holds that once investors know there will be a large new block of stock of a given company introduced into the market place, the prospect of this new supply will tend to depress the then current market place because of the possibility that the market place cannot absorb the new supply at the then current market price or that the new supply will depress per share earnings until the proceeds of the sale are invested by company and earnings rebound. Staff did a pressure analysis of Company's most recent stock offering (Staff Exhibit No. 3) and concluded that the price of Company's stock experienced positive preoffering pressure (where Company's stock performs better than the utility market as a whole). Intervenor GSA also performed a pressure analysis on all stock issues of electric utilities from 1975 through June, 1978 (Intervenor GSA Exhibit 2, Appendix 3) and which indicated that about half the issues showed positive pressure and half showed negative pressure. This led him to conclude that the pressure phenomenon could be disregarded because any utility facing a new stock issue has about a fifty-fifty chance of experiencing either negative or positive pressure.

Intervenor GSA witness also pointed out that if negative pressure was a prevalent and measurable occurrence, certain market specialists would capitalize on the phenomenon by selling short. The Commission tends to agree that arbitrage (which is the art of selling stock which you don't own on the expectation that the price will decline after you sell, and hence, you can buy the stock at a cheaper price at a later date when it becomes time to deliver the stock you sold) would become a common occurrence with every new stock issue if negative pressure was clearly present during the preoffering period. Further, the trend in common stock offerings is toward negotiated sales which tend to support the price of a stock during the preoffering period because the market makers, particularly the stock's specialists on the floor of the exchange, are aware of the preoffering selling effort of the selected underwriters and are aware of the fact that those underwriters will put in a support bid for the stock on the offering date. Hence, the Commission finds that the concept of negative pressure need not be considered in setting the proper M/B ratio for Company's stock and that staff's ratio of 1.04 is proper because it covers the possibility of higher floatation costs as a percentage of book value due to smaller issues.

Company witness recommended a return on equity of 15.5 percent based upon a series of tests which he performed to support his recommendation. These tests can be grouped into four categories covering the achievement and maintenance of a uniform AA bond rating, discounted cash flow analysis, comparable earnings tests and earnings/price analysis.

1. It was the position of Company witness that Company should achieve and maintain a uniform AA bond rating by both rating agencies (Moody and Standard & Poor) so that Company could raise capital at the lowest possible cost to Company and its ratepayers. He further explained that lower bond ratings result in higher costs for both debt and preferred issues (Company Exhibit No. 31, schedules 15, 16 and 18) and probably a higher cost for common equity. Further, it was his position that, in order to sustain a uniform AA rating, Company should have an after tax interest coverage of 2.5, excluding allowance for funds used during construction (AFFUDC), and finance approximately 40 percent of its construction budget through internally generated funds as these were criteria required by the rating agencies for the award of an AA rating.

Using the after tax coverage ratio of 2.5, excluding AFFUDC as his standard, Company witness developed a required return on equity in Company Exhibit No. 31, schedule 22. For the year ended June 30, 1978, the results were as follows (in thousands):

Actual interest expense per books	$ 30,845	
Earnings required for 2.5 times after tax coverage excludes AFFUDC (2.5 x $30,845)	77,112	
AFFUDC per books	+ 16,108	
Required income before interest	$ 93,220	
Less interest and preferred dividends per books	- 39,267	
Required Earnings for common equity	$ 53,953	
Income available for common equity per books	- 26,463	
Additional earnings needed to obtain coverages	$ 27,490	
Common equity per books	+318,419	
Adjusted common equity	$ 345,909	
Required return on common equity	53,953 / $ 345,909	= 15.6%

The Commission observes that an actual return on common equity of 15.6 percent would result in a pretax coverage ratio including AFFUDC of 4.3 considering only the federal tax rate. This can be calculated as follows:

Earnings required for 2.5 times after tax coverage excluding AFFUDC	$ 77,112
Less interest expense	30,845
After tax cash earnings	$ 46,267
Before tax cash earnings at tax rate of 46%	85,680
Plus interest	30,845
Plus AFFUDC	16,108
Earnings available for coverage pretax and including AFFUDC	$132,633
Divided by interest expense	4.3

Staff witness pointed out that the after tax coverage ratio standard excluding AFFUDC appeared in an article written in 1973 when the percentage of AFFUDC in "income available for common equity" was relatively minor. Though it is true that the percentage of earnings represented by AFFUDC is not supported by cash, and hence, does not provide cash protection for a Company's bondholders, it is not clear to this Commission what amount of AFFUDC the rating agencies will tolerate, in a period of heavy construction expenditures, and still award an AA bond rating. The only substantial evidence on this issue is found in Company Exhibit No. 31, schedule 7, which shows the average after tax interest coverage excluding AFFUDC of 30 electric utilities which do enjoy an AA bond rating. According to the exhibit, this ratio as of December, 1977, was 2.23. Company Exhibit No. 31, schedule 22, indicates that an after tax coverage ratio of 2.23 excluding AFFUDC requires a 13.5 percent return on common equity and the Commission calculates that this translates into a pretax coverage ratio including AFFUDC of 3.8 using the procedures set forth above. Hence, the Commission finds that a return on equity of 13.5 percent should support an AA rating if Company is actually able to earn that return.

Company Exhibit No. 31, schedule 5, indicates that Company's construction expenditures in 1977 were $157,741,000 while its internally generated funds were only $38,327,000 or 24 percent of its construction expenditures and that the test year percentage of internally generated funds had declined to 20.7 percent. Company witness was of the opinion that internally generated funds would have to provide approximately 40 percent if Company were to have a reasonable opportunity to achieve an AA bond rating. The Commission is equally concerned that internally generated funds as a percentage of construction expenditures in 1977 slipped below 30 percent, but would attribute this condition primarily to the depressed return on book equity in 1977 of 8.73 percent (Company Exhibit No. 31, schedule 26). Internally generated funds are usually provided by depreciation, deferred taxes and retained earnings. However, with Company's earnings at a level of 8.73 percent, with its payout ratio being over 80 percent and with a substantial portion of the earnings represented by noncash AFFUDC, earnings not only ceased to be a source of cash flow, but became a drain on cash flow. Further, the level of earnings could not even support Company's full deferred tax entitlements because deferred taxes can only offset the tax liability on cash earnings.

An analysis of the problem of internally generated funds centers upon two critical ratios--the ratio of construction expenditures to gross revenues and the ratio of internally generated funds to gross revenue. For instance, in 1977, Company had gross revenues of $272,000,000 and with construction expenditures of $158,000,000, and internally generated funds of $38,000,000, the two ratios were 1.72 and 14 percent respectively. Multiplying these two numbers together would give the percentage of construction expendituresgenerated internally or 24 percent which was Company's actual 1977 experience.

However, the Commission is not recommending a return of 8.73 percent in the instant case. A utility undertaking a major construction program and experiencing a higher equity return should enjoy a level of internally generated funds of approximately 15 to 20 percent of gross revenues. Company Exhibit No. 31, schedule 22, shows that if Company had earned 13.5 percent on book equity during the test year, it would have had total earnings of $45,000,000 and after removing noncash AFFUDC of $16,000,000, cash earnings of $29,000,000. This would have enabled Company to make a contribution to cash flow from retained earnings and take full advantage of its deferred taxes. Since the Commission is setting rates for the future, it is important to look at Company's condition in 1979 and beyond where a significant trend can be identified and that is a condition of increasing revenues and decreasing construction expenditures. Even assuming a conservative growth in revenues of 10 percent per annum (4 percent from load growth and 6 percent from rate increases and fuel adjustment), Company's revenues at the end of 1979 will be approximately $330,000,000 while its budgeted construction expenditures will be only $174,000,000 for a ratio of 1.89. This means that internally generated funds need be only 16 percent of gross revenues compared to 14 percent in 1977 (a year of depressed earnings) in order for internally generated funds to represent 30 percent of Company's construction budget.

It is interesting to note what percentage of the 1979 construction budget could be provided from internally generated funds if Company actually earned 13.5 percent on book equity in 1979 assuming a 1 percent growth in the book equity of $318,000,000 as of June 30, 1978 to $321,000,000 as of December 31, 1978, and assuming common dividends in 1979 of $27,000,000. Company Exhibit No. 31, schedule 2, budgets $67,000,000 of internally generated funds from depreciation and deferred taxes. A 13.5 percent return on year-end book equity would involve $46,000,000 of book earnings of which $19,000,000 would be added to year-end 1978 book equity of $321,000,000 for a total of $340,000,000 (13.5 percent times $340,000,000 equals $46,000,000). However, Company projects $36,000,000 of AFFUDC for 1979 so only $10,000,000 will be cash earnings available to pay $27,000,000 in dividends. Hence, the dividend payment would draw down the $67,000,000 of internally generated funds to $50,000,000 and given a construction budget of $174,000,000, internally generated funds would provide 29 percent of construction expenditures.

2. Company Exhibit No. 31, schedule 26, is a foreward looking discounted cash flow analysis under various assumptions concerning Company's future book equity returns, payout ratios and current market prices for its common stock. In essence, an analysis of this type implies that investors will look at Company's current condition, make projections as to the future flow of dividends and the future value of Company's stock, and discount these values back to the present. In other words, the investor realizes that a dollar received next year is not worth a dollar today because today's dollar could be invested and earn a return so that a year later the investor would have both the dollar and a return on that dollar. Hence, the investor will project the flow of expected dollars from an investment, discount that flow back to the present using a discount rate equal to his required return, and the resulting present value of this future flow of income is what the investor would be willing to pay for Company's stock. The market place tells us what the investor in Company's stock is willing to pay for that stock but not what the investor's required return is or what stream of income the investor is projecting into the future. However, with either one given, the other can be calculated mathematically. The crucial decision in this type of analysis then becomes what income stream is the investor projecting for Company or what income stream would it be reasonable for an investor to assume.

Company Exhibit No. 31, schedule 26, presents several alternative growth scenarios based upon a constant payout ratio of 68 percent and calculates for several market prices of Company's stock, the implied investor discount rate. For instance, if investors expect Company's return on equity over the next five years to approximate 11.5 percent and the current market price of Company's stock were $30.25 per share, then the investor's discount rate is 13.59 percent given a 68 percent payout ratio. In other words, Company's growth rate would be 3.68 percent per annum (the retention ratio of 32 percent times 11.5 percent) and dividends would grow from $2.56 per share in the first year to $2.96 per share in the fifth year. Book value would also grow from $32.78 per share to $39.28 per share in the fifth year and the only rate which will discount this five-year stream of dividends and the book value at the end of the fifth year back to a market price of $30.25 per share today is 13.59 percent.

The Commission finds that this approach is a useful tool in arriving at a final determination of the proper equity return. However, it appears to the Commission that the proper growth scenario should reflect the most current conditions which is a return on book equity of 8.73 percent and a market price of $27.00 which was the market price of the Company's stock at the time this exhibit was prepared. The implied investor discount rate under this scenario is 13.57 percent and Company witness would increase that number by 10 percent to cover floatation costs and market pressure because an investor discount rate of 13.57 percent means that if the investor expected Company to actually earn 13.57 percent, then that investor would only be willing to pay book value for the stock and the net proceeds to Company from a new stock issue would be less than book value. However, the Commission finds that the formula offered by intervenor GSA for adjusting the discounted rate for floatation costs (which is all the Commission will recognize in the instant case) of 4 percent is the proper adjustment because only the yield portion of Company's return is subject to market fluctuations. This formula divides the discount rate of 13.57 percent by one minus the payout ratio of 68 percent times the floatation cost of 4 percent or .9728 for a total return of 13.9 percent.

3. Company witness also performed several comparable earnings tests. Company Exhibit No. 31, schedule 28, shows that in 1977 the average return on book equity for all manufacturing companies was 14.1 percent. Company Exhibit No. 31, schedule 29, shows that the average book equity return as of June 30, 1978, for electric utilities with M/B ratios greater than 1.10 was 14.6 percent and schedule 30 shows the average return for Moody's 24 electric utilities as of June 30, 1978 was 11.2 percent. Schedules 31 and 32 comprise two groupings of

electric utilities with returns of 9.1 percent and 11.4 percent. The Commission agrees with Company witness that the results obtained from comparative earnings tests are too varied to be of value in selecting the proper return on book equity.

4. Finally, Company witness looked at what he called the risk factor between comparable bond yieldsand stock yields for the same period of time. In other words, in any given month, Company's earnings per share can be determined and its stock price can also be determined. The relationship between earnings and market price is called the earnings/price ratio (E/P ratio) and it indicates, in effect, the "yield" investors are getting on the stock in that month. The comparable bond yields for similarly rated bonds can then be compared to see what additional yield stockholders require over bondholders who enjoy a guaranteed return. Company Exhibit No. 1, schedule 33, indicates that for 1977, the average stock yield was 1.43 times greater than AA bond yields. Company witness then multiplied that times the AA bond yield of 9.25 percent which prevailed at the time his testimony was filed and arrived at an equity return of 13.23 percent.

The Commission observes that Company currently is subject to a split rating (Aa by Moody's and A by Standard & Poor's). The bond yields used in this exhibit were all AA yields while A yields would have reduced the risk factor to 1.39. With a split rating, the proper risk factor would be in between or 1.41, and multiplying that times the most current yield on newly issued bonds shown on Company Exhibit No. 1, schedule 15, of 9.41 would result in an equity return of 13.27 percent. With the adjustment for floatation costs covered above, the return on equity generated by this analysis would be 13.6 percent (13.27 percent divided by .9728).

Staff witness developed his recommended return on equity by utilizing a different approach to the problem. He began with the goal of selecting a rate of return which would permit Company to market its stock at 1.04 times book value which was discussed above. He then undertook a statistical analysis of 85 electric utilities for four years, 1974 through 1977, in order to determine what variables would "explain" the market-to-book (M/B) ratios of those companies. He started with 21 possible variables which might impact on M/B ratios and they were:

No. of Variables	Description
3	Total operating revenues divided into three size categories
4	Moody's bond ratings categorized as no rating; Ba and Baa; A; Aa and Aaa
1	Common equity ratio
1	Common dividend payout ratio
1	Return on year end common equity
1	AFDC as a percent of income for common
1	Ratio of electric utility operating revenues to total company operating revenues
2	Earnings per share growth; five years and ten years
2	Dividends per share growth; five years and ten years
2	Duff & Phelps regulatory ranking High equals 1 and 2; low equals 4, 5 and 6
1	Dividends per share coverage
1	Book yield
1	Moody's average public utility bond yield

Total - 21 Independent Variables

The analysis produced a model which explained 83.4 percent of the variability in the average market-to-book value of the 85 electric utilities based upon the following significant independent variables:

1. Book yield
2. Average bond yields
3. 10-year growth in earnings per share
4. Common equity ratio
5. Dividends per share coverage
6. Duff & Phelps regulatory ranking of 1 and 2
7. Duff & Phelps regulatory ranking of 4, 5 and 6
8. Operating revenues less than $100,000,000

The equation he developed from the model is:

M/B = .8438 - .0356(operating revenues less than 100 million) + .0445(Duff & Phelps ranking of 1 and 2) - .0309(Duff & Phelps ranking of 4, 5 and 6) + 1.796 (10-year growth in earnings per share) - 12.4075(average bond yields) + .02799 (dividends per share coverage) + 11.7520(book yield) + .5119(common equity ratio)

Taking the Company values for each variable during 1977, the formula "predicted" an average M/B ratio for Company in 1977 of .9248 when the actual average M/B ratio for Company in 1977 was .923. The predictions for the other 84 electric utilities as well as the actual M/B ratios for those companies are found in Staff Exhibit No. 2, schedule 19.

Staff witness took the Company values for each variable as of December 31, 1978, and set M/B equal to 1.04 as the proper market-to-book ratio for Company's stock. It was then necessary to solve the equation for book yield as follows:

$$1.04 = .8438 - .0356(0) + .0445(0) - .0309(1) + 1.796(-.006) - 12.4075(.09) + .02799(2.495) + 11.752(X) + .5119(.348) \text{ or } 1.1067 = 11.752X \text{ or } .0942$$

In other words, staff's model predicts that if Company's stock is to sell at 1.04 times book value as of December 31, 1978, Company will have to have a book yield of 9.42 percent on book equity. The total return necessary to support that book yield depends entirely on the payout ratio selected as proper because book yield represents that percentage of book equity return which Company pays out to its stockholders. Staff offered a range of payout ratios between 70 and 75 percent and at 70 percent, the return on book equity would be 13.5 percent (.942 divided by 70) while at 75 percent, the return would be 12.6 percent (.942 divided by 75).

The Commission finds that staff's approach is a valid technique for arriving at a cost of common equity. The one reservation the Commission has concerning the analysis performed by staff in the instant case is the bond yield of 9 percent which staff witness included in his formula. Since the preparation of Staff's testimony on this issue, bond yields have significantly increased. Indeed, the June, 1978 yield for newly issued AA bonds as shown on Company Exhibit No. 31, schedule 15, was 9.41 percent. Substituting 9.4 percent into staff's formula produces a required book yield of .979 and an equity return of 14 percent with a 70 percent payout ratio and 13.1 percent with a 75 percent payout ratio.

Intervenor GSA witness performed a traditional discounted cash flow analysis using the formula $R = \frac{D}{P} + G$ where R is the investor discount rate, D is Company's indicated dividend, P is current market price and G is Company's growth rate. In order to measure G, this witness looked at Company's past growth rate for dividends, earnings and book value for several periods of time (more specifically, for time periods of five, ten, fifteen and twenty years through 1977). For each time period and for each measure of growth, he performed a least squares regression in order to determine an exponential growth rate for dividends, earnings and book value and to determine how well that growth rate was correlated with one (which would indicate perfect correlation). The resulting exponential growth rates were weighted by their coefficient of correlation to arrive at a composite growth rate for each time period. For example, the composite growth rate for the period 1962 to 1977 was 4.36 percent while the rate for the period 1967 to 1977 was 3.33 percent, GSA Exhibit 2, schedule 1, page 6 of 12. He then looked at the market price of Company's stock and its dividend for the most current 16-week period and determined a yield of 9.40 percent. Adding this yield to the two growth rates gave him a return on equity unadjusted for floatation of 12.73 percent and 13.76 percent (GSA Exhibit 2, Schedule 1, page 12 of 12). Further, this witness performed a study on 24 electric utilities to determine the correlation between growth rates and dividend yields for each time period. GSA Exhibit 2, schedule 2, page 1 of 4, indicates that the 1962-77 period had a negative correlation of .71 and the 1967-77 period, a negative correlation of .77. Because the 1967-77 period provided the best correlation, he gave more weight to its implied return on equity and selected 12.9 percent as the single best estimate unadjusted for floatation costs.

However, the Commission finds that GSA witness should have carried his weighting procedures one step further and weighted the two composite growth rates of 4.36 percent and 3.33 percent with their respective correlation coefficients of .71 and .77. This would have resulted in a composite growth rate of 3.82 percent, an investor discount rate of 13.22 percent and a return on equity recommendation adjusted for floatation costs of 13.5 percent.

The Commission finds that Company should be allowed an opportunity to earn a return on equity of 13.4 percent. This is based upon staff's recommendation adjusted for a bond yield of 9.4 percent and a payout ratio of 73 percent. If Company is actually able to earn this return, it should provide sufficient coverages to warrant an AA bond rating, permit Company to finance approximately 30 percent of its construction budget with internally generated funds, and sell new issues of common stock above book value.

C. The Cost of Long-Term Debt and Preferred Stock. All parties agreed to use the embedded cost of debt and preferred for this test year of 7.2 percent and 7.59 percent respectively. The Commission accepts these numbers and finds that Company should be allowed the following rate of return:

Long-term Debt	51.0% at 7.20%	3.672
Preferred Stock	13.1% at 7.59%	.994
Common Equity	35.9% at 13.40%	4.810
	Rate of Return	9.476

Rate Design

Once the Commission makes an initial determination of the amount of revenue required in a given rate case, it must take an additional step and determine the method by which Company is to achieve that revenue. Such consideration requires the Commission to determine how the total revenue requirement shall be spread over the various classes of Company's customers and further how each class' portion should be spread over the individual users within the class. The Commission notes that the rate design currently in use, since set and approved by the Commission, is presumed to be lawful and just. On the other hand, each party to this proceeding has proposed some change in the rate design.

Company proposes to allocate any increased rates on an equal percentage basis among and within its various customer classes. Certain exceptions are suggested, most of which are of minor import. Of more note are provisions to implement a customer charge for the residential class and to effect a general flattening of rates in all customer classes. In support of these various proposals, Company asks us to "prophesy" the results of the ongoing Load Research/Cost of Service study required by Case No. 18,250 and Rate Design Case No. EO-78-161.

Staff urges caution in changing rate design at this point in time, noting the pending study and rate design case and asserting that until those matters are completed there will be insufficient reliable data to justify any comprehensive changes in the rate structure. Staff does suggest that any rate increase granted be allocated to the energy and demand components of each of Company's customer classes in such a way as to preserve the status quo with respect to the total contribution of each such class to total revenues. Within each class the increase should be allocated on a per unit basis so as to flatten the declining block rate structure.

Public Counsel would take staff's proposal a step farther and advocates applying any increase on a uniform cents per kwh as to allocation among the various classes as well as among the individual customers within each class. The flattening effect noted in connection with staff's proposal would thus be increased in magnitude. Intervenor, National Welfare Rights Organization supports the concept of a uniform cents-per-unit application with the exception of freezing the first 450 kwh in the residential class at the present rate.

Industrial intervenors, on the other hand, propose to spread the increase by an equal percentage after first removing the cost of fuel from base rates, proportionally increasing the base rates by the proper percentage, then adding back in the fuel component. They also recommend a shift of two mills from the energy charge to the demand charge, which, it is asserted, will better reflect variable costs. GSA also recommends the creation of a general interruptible tariff similar to the contractual arrangement between Company and Armco previously approved by the Commission.

We recognize the many benefits that can accrue to all parties from an interruptible service arrangement such as suggested by GSA and as exemplified in the contract between Armco and Company. We further recognize the impracticability of drafting a tariff of general application in this regard. The needs for service and the ability of each large user to curtail must, of necessity, be treated individually. With this in mind the Commission encourages overtures in the direction taken by the Armco contract, with the caveat that we must consider each such agreement in the future on an individual basis.

The foregoing suggestions of the parties make it appear that no class of Company's customers is satisfied with the existing rate structure. An examination of these suggestions also indicates that the dissatisfaction of each class can be assuaged by shifting a portion of its burden to the other classes. The Commission, however, is not in a position at this time to make an inclusive judgment as to the appropriate rate design to accomplish the many beneficial goals suggested by the parties, as well as others of which the Commission is aware and which it must consider in any overhaul of Company's rates. The study mandated by Case No. EO-78-161 is due for completion and filing with the Commission in the near future which will be followed by the comprehensive rate design study in Case No. EO-78-161. The Commission finds that any extensive rate structure consideration must await the outcome of the rate design case, which outcome the Commission does not choose to prophesy.

The Commission does, however, recognize the promotional nature of declining block rates, and consequently accepts staff's proposal to allocate any increases within each customer classification on a cents-per-unit basis, to effect some moderation and flattening of the block structure.

Chemagro Issue

The Public Counsel contended that steam sales from Company's Hawthorn Generating Station made to Chemagro Corporation do not fully compensate the Company for its expenses, and therefore an adjustment should be made to either Company's cost of service or to the allowed rate of return. Nowhere did the Public Counsel quantify either alternative adjustment; nor did he explain or develop the detriment to Company's retail electric ratepayers resulting from the Chemagro sales. Any proposal by the Public Counsel was apparently abandoned by his failure to brief such issue.

Steam for sale to Chemagro is generated at Company's Hawthorn Station (adjacent to Chemagro) and all facilities uniquely installed to serve Chemagro; a fraction of joint (electric/Chemagro) facilities are also assigned or allocated to the Chemagro business based on its demands on those joint facilities. This situation results from a long-term contract entered into by Company and Chemagro. All profits or losses are enjoyed or absorbed entirely by the Company's stockholders, and no part of the Chemagro operations is reflected in Company's retail electric or steam rates.

The Company's non-utility business with Chemagro is not regulated by the Commission. Although the bulk of its business is characterized as "public utility" operations, Company can and does engage in business enterprises apart from the public utility sphere, as in this instance. In Case No. ER-77-118, the Commission has previously held that the Chemagro operations should be treated as non-utility in nature, and again so holds. Consequently this adjustment is denied.

The Strike

From July 1, 1978, until late November, 1978, Company's union employees were on strike. This, of course, was outside the test year. At the Public Counsel's urging and over Company's objection, the Commission took up the issue of the effect of the strike on Company's revenue requirement and safety and adequacy of service. The record does not reflect a single person objecting to the quality of service rendered by Company, other than a minor complaint concerning the fact that customers were requested to read their meters and were not compensated for same. In fact, Company did encourage its customers to read their own meters, and approximately 65 percent did so. These readings were generally accurate.

The strike did not have a significant effect on Company's system's reliability and adequacy. All damage was promptly repaired, the generating plants functioned properly and were maintained during the strike. In order to accomplish this, Company supervisory and management personnel worked six or seven days a week, twelve hours per day. On some days, they worked as many as fifteen or sixteen hours. Also, Company used retired employees and outside independent contractors to take up the slack. In some cases, where it was practical to do so, Company deferred certain types of maintenance and certain jobs that would have been done during the strike period (i.e., tree trimming).

Company maintains that the economic impact of the strike was essentially a break-even proposition. Company introduced evidence that it incurred an economic detriment of approximately $185,000 as a result of the strike. Company opposed considering the issue of the strike in this case and opposed considering the economic gain or loss from the strike in determining its revenue requirement. Public Counsel maintains that the Company experienced a net savings as a result of the strike, and that this should be considered with regard to the issues of rate of return and normalization insofar as an analysis of the Company's interest coverage ratio and cash flow is necessary in determining these issues.

The Commission concludes that the economic effect of the strike was relatively insignificant, outside the test period, and that the record established in this case is insufficient to recognize any economic adjustment.

Wage and Price Guidelines

It was the position of intervenor GSA, supported by Public Counsel, that any rate relief resulting from the instant case should not exceed the voluntary price standards prescribed by the President in Executive Order 12092 as part of his anti-inflation program. Intervenor GSA set forth the pertinent parts of the price standards in its brief as a quote from 43 Fed. Reg. 60773. That reads as follows:

> 705A PRICE STANDARDS
>
> 705A-1 General Applicability of the Price Standard. The price standard applies to all goods and services (products) sold in the United States and its territories and possessions, including goods and services sold by Federal, State, and local government entities.
>
> 705A-2 Price Deceleration Standard. A company complies with the general deceleration standard if its program-year rate of price change is no greater than (1) the base-period rate of price change minus the deceleration percentage or (2) 9.5 percent, whichever is less. However, a company with a program-year rate of price change of 1.5 percent or less will be considered to be in compliance with the price deceleration standard regardless of its base-period rate of price change. For the purposes of this standard:
>
> (a) The program-year rate of price change is the sales-weighted average of the percentage changes of a company's product prices measured from the last calendar or fiscal quarter completed prior to October 2, 1978, through the same quarter of 1979.
>
> (b) The base-period rate of price change is the sales-weighted average of the percentage changes of a company's product prices from the last calendar or complete fiscal quarter of 1975 to the corresponding quarter of 1977, expressed at annual rates.
>
> (c) The deceleration percentage is 0.5 percentage points unless a company experiences pay deceleration that is greater than 0.5 percentage points, in which case full pass-through of the additional pay deceleration is required for compliance with the general price deceleration standard. In such instances, the total price deceleration percentage is 0.5 percentage points plus the multiple of the company pay share and the rate of pay deceleration that is in excess of 0.5 percentage points.

GSA Exhibit No. 10 goes on to calculate the percentage changes of Company's prices over the base-period 1976-1977 as 8.1 percent on an annual basis, and with the one-half percent deceleration removed, he concludes that the maximum percentage increase which Company can receive under the guidelines is 7.6 percent.

The Commission is willing to consider the President's voluntary price standards as a guide to setting rates in the instant case. However, the guidelines, as set forth above, prescribe a "program year" commencing October 1, 1978 and ending September 30, 1979. The Commission is also willing to consider intervenor GSA's calculation of a maximum price increase of 7.6 percent for the program year on an annual year. Since any increase granted in the instant case will not become effective until approximately the middle of March, 1979, or in other words, after 46 percent of the program year has elapsed, the maximum allowable percentage increase for the balance of the program year would be 14.0 percent (14.0 percent times 54 percent, the percent of the program year which has not elapsed, equals 7.6 percent). Since the rate increase which the Commission has determined to be reasonable in this case does not exceed 14 percent for the balance of the program year and, therefore, does not exceed 7.6 percent for the entire program year, it is not necessary for the Commission to adjust that increase in order for it to comply with the President's voluntary wage and price guidelines.

The Commission is also aware of a draft of an alternative guideline denominated, "705C-8 Alternative Price Standard for Electric and Gas Utilities," issued by the Council on Wage and Price Stability on February 23, 1979. The Commission has instructed its Secretary to file a copy of such draft in the official file of this case. It is the Commission's opinion that this rate order is in compliance with either standard presently advanced under the President's voluntary wage and price guidelines.

Operations and Maintenance Expense

In the Hearing Memorandum the Public Counsel reserved the right to state a position regarding the Company's level of operations and maintenance expense. In his brief the Public Counsel does not propose any adjustment to operations and maintenance expense, but requests the Commission to prepare a study determining why the maintenance expense has increased 2.84 times since 1974 and include in that study a five year projection of the nature and amount of maintenance expense, and to prepare an analysis of the nature and amount of maintenance expense to be included in the minumum filing requirements of the Company's next rate case.

Since June 30, 1974, the Company's maintenance expense has risen from $7,794,000 to $22,164,000, or approximately 184 percent. Company's installed net generating capacity has increased 56.7 percent from 1973 to 1977. And, as we all know, there has been considerable inflation during the time period involved. LaCygne Unit 1 represents approximately 20 percent of the Company's total maintenance expense. During the test year its maintenance expense increased approximately 50 percent. This unit is equipped with the world's largest wet scrubber system for pollution control. LaCygne Unit 1 represents a considerable portion (in the neighborhood of 15 to 20 percent) of Company's total generating capacity. Company's actual production expenses for the last half of 1977 were somewhat greater than the amount budgeted for that period, but less than the level anticipated for such expenses in Company's 1978 operating budget and preliminary 1979 operating budget for the last half of those two years.

Staff witness Robert Schallenburg testified that the staff did not propose an adjustment for maintenance expense because it believed that the amount allowed by the Company for the test year was conservative and that in the future would be a great deal higher. Mr. Schallenburg went on that one cannot make a determination based on percentages as to whether maintenance is abnormally high or low, that one must do an analysis of what the maintenance expense represents, and the Commission staff made such an analysis in terms of what one would look for in trying to make a maintenance adjustment. In doing so, the staff considered the nature of the expenditures for maintenance, the fact that LaCygne Unit 1 was off line fewer hours, the age of the plants involved, the fact that plants cannot be taken off line all at once but must be taken off line on a scheduled basis. The Staff not only looked at the amount of dollars the Company spent on maintenance during the test year, but the amount that would be spent in the future. Mr. Schallenburg testified, and we find, that the increase in maintenance is due to two factors: a different type of maintenance than was done in a prior period, and, higher prices. Forty to 45 percent of the increase was due to the higher prices, and the balance due to the different type of maintenance work. In view of the analysis of the Company's maintenance expense performed by Mr. Schallenburg, we reject the Public Counsel's request for a study of maintenance expenses and an inclusion of the nature and amount of maintenance expenses in the minimum filing requirements.

Late Payment Charge

Company proposes that its existing late payment charge, embodied in its Rule 8.04, be found reasonable and permitted to remain effective without modification. In the event of elimination or modification of such late payment charge, Company contends that the annualized revenues generated by the assessment of such charge against Missouri customers, in the amount of $474,070, be reflected in cost of service. Kansas City and Armco support this position.

Company presented testimony on the late payment charge issue pursuant to 4 CSR 240-13.020(8),[1] which required Company to support the reasonableness of its late payment charge as applied to the Missouri residential customer class. The Public Counsel opposed continuation of the late payment charge and the inclusion of any revenues in Company's cost of service in the event that the charge is eliminated. Under 4 CSR 240-13.020(8), we would have no choice but to increase the Company's revenues generated through regular sales of electricity if the late payment charge is eliminated.

Company's Rule 8.04, Payment of Bills, sets forth the late payment charge presently in effect. The late payment charge, assessed only on delinquent bills, is a charge of five percent of the first $50 of the net amount due (the amount due if paid within 21 days of bill rendition), and one percent of the remainder of the net bill.

There are three basic purposes of the late payment charge:

1. To recover the additional costs of extending credit to individual late paying customers and collecting delinquent bills;

2. To encourage and provide incentive to all customers to pay in a timely fashion; and

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[1] 4 CSR 240-13.020(8) reads as follows:

"A utility shall not access [sic] an additional charge upon a customer by reason of the customer's failure to pay any balance due and owing prior to the date established for payment unless said charge has been approved by the commission after hearing as a part of the utility's rate tariffs. At any such hearing the utility shall prove the reasonableness of any such charge. Any utility with approved tariffs allowing such charges in effect as of the effective date of these rules may continue to assess and collect such charge until the effective date of a commission order approving or disapproving the utility's request for a general rate increase or decrease. In any proceeding before the commission where such previously approved tariff expires and/or a new tariff providing for such charge is approved or modified, the commission in its order shall recognize the effect of such expiration, and/or approval, or modification in such charge upon the utility's revenues, expenses and return and make reasonable provision therefor in the utility's rates."

3. To avoid discriminatory treatment in favor of that class of customers whose payment practices create costs which, if not paid by that class of customers, must be paid by other customers.

Under Company's present billing procedures, each customer is notified upon billing that he or she will be economically rewarded by paying the "net" amount of such bill within 21 days from the bill or statement date. The customer is further notified that, after the 21st day (the delinquent date), an additional charge will be incurred and that the "gross amount" stated on the bill will be due. The difference between the "net" and "gross" amounts represents the late payment charge.

The degree to which the late payment charge induces the customer to pay the "net" amount before the delinquent date, or to pay the "gross" amount before collection activities have begun, is admittedly difficult to assess. Nevertheless, because each customer can immediately evaluate the economic consequence of paying late, the late payment charge provides an incentive for prompt payment. The alternative to encouraging customers to pay promptly through the use of a late payment charge is to immediately invoke service termination rights for customer tardiness. Such suggested alternative would be a drastic measure, not only for the customer, but also for the Company.

Company's present late payment charge is a device by which its customers are, to avoid discrimination, automatically classified as prompt or delinquent payers. By assigning as closely as possible the costs associated with collection activities to the overall class of delinquent customers who, in the aggregate, create those costs, the Company can avoid the discrimination that would result if the prompt paying customers were required to share the burden of collection costs not of their making.

Company Exhibit 24, Schedule 4, reflects that in 1976 and 1977 the expense of collecting from late payers was approximately 90 percent of the revenue generated from the late payment charge. The remainder is a contribution to offset bad debt losses (uncollectables). The Company's position appears to be that the late payment charge should offset uncollectables in whole or part. We agree with the Company that those customers who pay late should bear the increased cost generated by late paying customers; however, we are unable to conclude that late paying customers are any more responsible, or should bear any more of the cost incurred as a result of those customers who fail to pay, than those customers who pay promptly. In other words, if Customer A pays on time, Customer B pays late, and Customer C does not pay at all, someone must make up the cost of Customer C's not paying at all. We find no rational basis for forcing Customer B to pay all the cost of Customer C. Instead, the cost of Customer C should be spread among all customers. For this reason, the Company's late payment charge should be reduced by at least ten percent.

The longer the customer delays in paying his bill, the more costs are incurred by the Company. The customer who pays his bill two days after the late payment charge is assessed causes less cost to the Company than the customer who pays his bill when a Company representative is at his door ready to disconnect service. Costs go up as intermediate collection procedures are utilized. Since the current late payment charge treats all late payers the same, the Public Counsel argues that it is unreasonable and should be rejected. It is also true that the costs incurred by the Company are different when it has to send someone ten miles to the customer's house to collect or terminate service than when it has to send a person one mile to the customer's house to collect or terminate service. In a perfect world, each late paying customer would pay to the penny the amount of cost incurred in collecting from him. However, in our less than perfect world, the impracticality of distinguishing between all 111,000 late paying customers and the costs that they cause the Company is apparent. While the Company's late payment charge does not distinguish between the various late paying customers, it does not necessarily follow that it is unreasonable because it fails to do so.

The Commission finds that, in view of all of the evidence, the present form of Company's late payment charge is reasonable and proper, with the exception that the Commission finds a charge of two percent to be more appropriate than five percent. In all other respects the late payment charge of Company will be allowed to continue. The Commission further finds that the remaining annualized revenue of $284,442 which will no longer be collectable as a late payment charge is a cost of doing business and should be so reflected in the general rate increase granted herein.

Advertising

The Company included a test year advertising expense of $546,471. A staff adjustment to which the Company did not object disallowed $74,538 of these expenses, which pertain to the Company's Energy Dialogue series. GSA's accounting witness, Mr. Marshall, proposed an adjustment to eliminate all of Company's institutional advertising which he identified as $209,000 appearing in the Missouri portion of Account 930.1. The Public Counsel proposed that the Commission adopt the "New York Standards" for Company's advertising expenses, under which a fixed percentage of operating revenues, in inverse relationship to the size of the company, is permitted for ratemaking purposes.

GSA's proposal was to eliminate all the expense in Account 930.1 on the grounds that this was good will or institutional advertising designed to improve the image of the utility with the public. Account 930.1 is an account for general advertising expenses that are "not provided for elsewhere". The extent to which Account 930.1 contains good will or institutional advertising "designed to improve the image of the utility or the industry" or advertising "not provided for elsewhere" does not reflect in this record; nor is there sufficient evidence from which we can determine whether the advertising "not provided for elsewhere" should be allowed. The Company has the burden of proving the reasonableness of its expenses and the Commission is not persuaded from the record of this proceeding that these expenses constitute a reasonable expenditure.

The Commission has determined that there will always be a problem in determining whether content of advertising conforms with policy statements which range from "promotional" to "informational" to "political". Therefore, the policy adopted in both Kansas City Power & Light Company, Case No. 18,433, and GR-77-33 will no longer be in effect and the policy articulated by the Commission in Laclede Gas, Case No. GR-78-148, will prevail.

The policy articulated in Case No. GR-78-148 adopted the New York policy, which permitted informational, institutional and good will advertising in an amount which is based on a percentage of operating revenues for utility companies. In articulating that policy the Commission recognized, too, that the newly adopted policy would eliminate the need for a review and an arbitrary determination for inclusion of each ad as a ratemaking expense. The Commission also recognizes that a competitive situation exists between electric and gas companies which has resulted in advertising by both entities. Therefore, as was established in

Case No. GR-78-148, to determine the percentage of revenue permitted under these guidelines, the Commission will group all energy-related utilities rather than gas companies as a group or electric companies as a group. The Commission recognizes that Company will not rank as one of the largest utilities in this grouping, nor will it appear as one of the smallest. However, the Commission will allow one-tenth of one percent of operating revenues for Company as an appropriate above-the-line advertising expenditure as a result of its size and its competitive situation. The Commission also orders the Company, whenever possible, to indicate on its advertisements which are of a promotional or political nature, that the costs for the advertising are borne by the stockholder.

The Commission also recognizes that there will be circumstances in which the Commission may order energy-related utility companies to undertake specific projects. In these instances, the Commission will recognize a cost of advertising as a ratemaking expense in addition to the amount permitted under the percentage formula. The Commission will recognize the Company's advertising expense to be allowed in the amount of $220,204 based on Missouri operating revenues of $220,204,079.

Dues and Donations

The Public Counsel requested that the Commission disallow $14,217 of dues Company paid to various organizations. The organizations and amounts of dues paid during the test year are as follows:

National Association of Electric Companies (NAEC) - $8,717;

National Association of Manufacturers (NAM) - $1,500;

Construction Users Council (CUC) - $2,000;

Associated Industries of Missouri (AIM) - $2,000.

Company seeks to claim all these dues as expenses for ratemaking. Traditionally, this Commission has disallowed dues to organizations where no direct benefit results to the utility ratepayer from the activities of that organization. Re Laclede Gas Company, Case No. GR-78-148. The dues at issue must be examined in light of this standard.

The Construction Users Council was founded in 1971. At that time there had been two very serious strikes in the building industry in Kansas City shutting down construction. A construction user is the person for whom a building or particular item of construction is being built. Construction users felt that they were not being represented in the deliberations and policy setting that took place when contracts were negotiated between the construction industry and its unions. The construction users desired input so that work rules that promoted productivity would be established and wage increases would be matched by improvements in productivity. The CUC does not engage in lobbying and the record does not reflect any attempt to influence legislation or public opinion by it. Since Company is a construction user, its cost will be lower if its construction is performed in a more efficient manner. This will result in reduced cost to the ratepayer. Therefore, there is direct benefit to the ratepayer from Company's payment of dues to and participation in the activities of the Construction Users Council, and said dues should be allowed as an expense for ratemaking.

NAEC served for some years as a "Washington watchdog" for various electric companies throughout the country. It watched the progress of legislation and regulatory matters and informed the member companies of the status of such matters so that members could contact the legislature or regulatory agency and indicate their interest in the matter. It presented facts to the member companies so that they could take whatever action they deemed appropriate on legislative or regulatory matters. This the Company seeks to distinguish from lobbying, since it does not involve directly influencing legislation or regulatory matters as does lobbying. We fail, however, to see that this distinction is relevant. As noted, the primary function NAEC performs is to report on legislative or regulatory matters so that the companies can take whatever action they deem necessary. We fail to see that any direct benefit results to the ratepayer from the dues paid to NAEC. As a result, they are disallowed.

NAM and AIM are similar organizations. NAM operates on a national scale and AIM on a Missouri basis. AIM supports the economic interests of Missouri manufacturing employers. Both NAM and AIM alert their members to the status of current legislative and regulatory matters. NAM will also attempt to present its members' side of an issue to the public. Both hold seminars and meetings and conduct studies on matters of interest to their members. However, the record is not clear on the nature or purpose of these studies, meetings and seminars. NAM and AIM spend under three and one-half percent of their budgets on lobbying. As is the case with NAEC, we see no direct benefit to the ratepayer from these activities, and conclude that the dues paid to AIM and NAM should not be allowed for ratemaking. We do not see anything improper about the activities of these organizations or the stockholders of Company contributing to them. However, the expense should not be borne by the ratepayer.

Research and Development

Jackson County and the Public Counsel, in the Hearing Memorandum, reserved the right to inquire into and assert a position on research and development expenses. All other parties reserved the right to establish a position. However, Jackson County did not appear at the hearing to cross-examine on this issue. In its brief Jackson County asserted no position with regard to this issue other than to say, generally, that it agreed with the positions in the Public Counsel's brief.

The Company sought initially to claim as an expense for ratemaking $1,587,378 that it spent on research and development during the test year. Sixty-six Thousand Five Hundred Twenty-one Dollars ($66,521) of this was dues to Edison Electric Institute, which was included erroneously. This leaves a balance of $1,511,857, which breaks down as follows:

1. Arthur Andersen & Co. - $389,693;
2. Contributions to EPRI - $1,049,186;
3. Byproduct research and development - $13,041;
4. Fly ash research and development - $10,661;
5. A Westinghouse project on the standardization of nuclear reactor design and a payment to Missouri Public Service Company on meter installation on a test station in Missouri Public Service Company's service territory - $49,276.

In his brief the Public Counsel took the position that the Commission should disallow $491,886 of these expenses and order the Company to maintain a closer review of the EPRI budget or risk disallowance of all costs associated with contributions to EPRI.

EPRI, the Electric Power Research Institute, is the research arm of the Edison Electric Institute (EEI), a national organization of electric companies. Members of EEI make contributions to EPRI based on the size of the company. During 1978, the EPRI budget was $193,000,000. This is expected to almost double by 1983. The budget is approved by the Board of Directors of EPRI, which is made up of senior executives of the member companies, one of which, of course, is Company. Except for this, Company does nothing to review EPRI's budget or how it is spent. During the test year, no one from Company tried to influence EPRI on how it spent its money for research. A Company witness identified, and the Public Counsel introduced in evidence, a one page breakdown of the EPRI budget for 1978. Beyond this, the Company's witness was unable to give much information on the details of how EPRI spent its money. We have examined Public Counsel Exhibit 13, the breakdown of the 1978 EPRI budget, and find that the expenditures therein and the amount thereof are reasonable and within the realm of Company management's discretion. We also find, as noted in the Commission's Report and Order in Case No. 17,583, effective April 24, 1973, that present electric research and development is too great an undertaking for any one company such as Kansas City Power & Light Company, and that the best approach is pooling of resources through a national organization, such as Company has done with EPRI. EPRI issues reports of its research and sends them to the member companies. It can be assumed that officials at Company read these reports. On the other hand, Company's witness was quite vague and unspecific when asked exactly what the Company had received and put into operation as a result of the research and development of EPRI. In the Commission's Report and Order in Case No. 17,583 the Commission said the following:

> "The companies are in a better position to exercise appropriate management control over this type of expenditure and to determine whether the programs established by EPRI are useful and beneficial. We believe the allocation of revenues to meet the needs of business is a primary function of company management to be made with a total knowledge of all expenses. We expect the electric utilities to police the programs and expenditures of EPRI.
>
> ". . . [W]e shall review said expenditures during rate cases..."

The Commission finds nothing in the record which suggests that EPRI is spending its money improperly. However, we are concerned about the Company's lack of knowledge of the details of those expenditures as required in the Commission's order in Case No. 17,583. Public Counsel also identified a potential problem when he raised the issue that EPRI's annual budget could double by 1983 if EPRI did not adjust its membership allocation formula to recognize increasing energy prices. The burden of proof rests with the Company if the Commission is to continue permitting the Company to charge ratepayers for its research and development commitment to EPRI. Although the Commission will allow the EPRI dues spent in the test year, in future cases it will not recognize as a ratepayer expense an amount which exceeds the dollar amount awarded in this case without complete justification by the Company that further expenditures are warranted.

The Public Counsel also requests that we disallow $389,000 the Company paid to Arthur Andersen & Co. for development of a property record information system (PRIS), a computerized system used for accounting functions, work orders and property records. The Public Counsel argues that the cost of implementing

PRIS was authorized in the Company's last rate case, ER-77-118, and that the Company is, in effect, seeking a double recovery of these expenses. In ER-77-118 Company was authorized to amortize the cost of this project. The $389,000 which the Public Counsel seeks to disallow merely represents the amortization of this expense during this test year, and not a double recovery of same. This expense is allowed.

The Public Counsel also argues that the amount the Company spent on nuclear research and development should be amortized over the next four years due to the fact that the Company will not have a nuclear facility in operation until 1983. This involves the approximately $49,000 paid to Westinghouse as part of a nuclear design project, and 28 percent of its contribution to EPRI.[2] We reject the Public Counsel's contention with regard to this matter and conclude that the entire amount should be allowed for ratemaking purposes during the test year. These expenditures are recurring and are not abnormal.

We therefore find that Company should be allowed $1,511,857, representing its expenditures for research and development, for ratemaking.

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[2]Twenty-eight percent of EPRI's budget goes to research and development for nuclear power.

Fair Value Rate Base

We find the Missouri electric portion of the Company's fair value rate base to be $562,786,994 ~~$563,346,366~~. In arriving at this finding, we have applied the equity ratio to the trended original cost net plant, and have applied the debt ratio to the original cost net plant. In addition, we have included the other necessary components of rate base, such as cash working capital. Applying the net operating income of $44,339,850 ~~392,823~~, which we find to be reasonable in this case to the fair value rate base of $562,786,994, produces a fair rate thereon of 7.88 ~~7.89~~ percent. Also, we note that the Missouri electric portion of the Company's original cost net rate base is $468,213,835.

Steam Heat Operations

The Company filed revised steam heat tariffs designed to increase annual revenues by 5.65 percent, or approximately $228,000, based on sales at June 30, 1978, including gross receipts taxes. All parties agreed that the Commission should permit the Company's steam heat tariffs to become effective without modification. We find that this is fair, just and reasonable. Therefore, the parties' agreement on the steam heat tariffs of Company is approved.

Conclusions of Law

The Missouri Public Service Commission has arrived at the following conclusions of law:

The Company is a public utility subject to the jurisdiction of this Commission pursuant to Chapters 386 and 393, RSMo 1969.

The Company's tariffs which are the subject matter of this proceeding were suspended pursuant to the authority vested in this Commission by Section 393.150, RSMo 1969.

The burden of proof to show that the proposed increased rates are just and reasonable is upon the Company.

The Commission, after notice and hearing, may order a change in the rate, charge,or rental, in any regulation or practice affecting the rate, charge or rental, and it may determine and prescribe the lawful rate, charge, or rental, and the lawful regulation of practice affecting said rate, charge, or rental thereafter to be observed.

The Commission may consider all facts, which in its judgment, have any bearing upon a proper determination of the price to be charged with due regard, among other things, to a reasonable average return upon the capital actually expended, and to the necessity of making reservations out of income for surplus and contingencies.

The Order of this Commission is based upon competent and substantial evidence upon the whole record.

The Company's existing rates and charges for electric service are insufficient to yield reasonable compensation for electric service rendered by it in this State, and accordingly, revisions in the Company's applicable tariff charges, as herein authorized, are proper and appropriate and will yield the Company a fair return on the net original cost rate base or the fair value rate base found proper herein. Rates resulting from the authorized revisions will be fair, just, reasonable and sufficient and will not be unduly discriminatory or unduly preferential.

All late filed exhibits including Staff's Exhibit No. 14 containing a reconciliation of Staff's and Company's operating income and rate base are a admitted.

All motions not heretofore ruled on are denied and all objections not heretofore ruled upon are overruled.

The fair value rate base of $562,786,994 and operating income of $44,392,823 are hereby determined to be fair, just and reasonable.

The Company should file in lieu of the proposed revised tariffs, new tariffs designed to increase gross electric revenues by approximately $24,228,763 excluding gross receipts taxes.

The Company's existing rates and charges for steam service are insufficient to yield reasonable compensation for that service rendered by it in this State. However, the proposed tariff charges filed with the Commission for steam service are proper and appropriate and will yield the Company a fair return. The rates are fair, just, reasonable and sufficient and will not be unduly discriminatory or unduly preferential.

It is, therefore,

ORDERED: 1. That the proposed revised electric tariffs filed by Kansas City Power and Light Company of Kansas City, Missouri, in this case are hereby disapproved and the Company is authorized to file in lieu thereof, for approval of this Commission, tariffs designed to increase gross revenues by approximately $24,228,763, exclusive of gross receipts and franchise taxes.

ORDERED: 2. That the proposed revised steam tariffs filed by the Company in this case are hereby approved.

ORDERED: 3. That the Company shall file its tariffs in compliance with the Report and Order on or before March 9, 1979, using a rate design as set out in this Report and Order.

ORDERED: 4. That the rates established in said tariffs shall become effective for service rendered after the effective date of this Report and Order.

ORDERED: 5. That this Report and Order shall become effective on the 15th day of March, 1979.

BY THE COMMISSION

Lawson Phaby

Lawson Phaby
Acting Secretary

(S E A L)

Fraas, Chm., Sprague and Jones, CC., Concur and Certify compliance with the provisions of Section 536.080, RSMo, 1969.
McCartney and Slavin, CC., Concur in Part and Dissent in Part.

Dated at Jefferson City, Missouri, this 5th day of March, 1979.

DISSENT OF COMMISSIONER ALBERTA C. SLAVIN

Case No. ER-78-252

I respectfully dissent on the following issues:

1. Normalization

2. Late Payment Charge

3. Excess Capacity

4. Rate of Return

The reasons for my position are several, and I will discuss each in turn.

Normalization. The Commission in this Report and Order has deviated from the standard enunciated in past Commission cases which repeatedly ruled that cash flow, interest coverage and internally generated funds analyses will control its decision in the area of tax normalization. As pointed out in the Report and Order approved by the majority, "the test applied in the past, and which the Commission reaffirms, is whether or not the utility has proven that its needs in the area of cash flow, reduced external financing, improved interest coverage and financial stability justify the Commission ordering current ratepayers to pay higher rates in the immediate future with the possibility of future customers not having to absorb higher rates in the future than would result if the Commission declines to allow full normalization" (Case No. ER-77-118). The majority have repudiated the staff position which recommended that the Company's request should be denied and that the pensions, payroll taxes and property taxes capitalized should be flowed through at annualized levels as opposed to per book's levels. The staff submitted that the Company's testimony and exhibits showed that its financial situation, particularly cash flow and internal funds for construction, will significantly improve with rate relief recommended by staff and that additional normalization requested is unnecessary. The staff took the logical position that when there is a choice between forcing the Company's customers to provide the cash flow necessary to support construction or forcing the Company to raise money in the financial market place, the Company should be forced to raise money in the market place.

In estimating the Company's interest coverage in percentage of funds for construction generated internally for the immediate future, the staff assumed a 13.2 percent return on equity. The majority in this Report and Order have approved a 13.4 percent return on common equity. Using the staff assumption, schedules provided by the Company show that Company's interest coverage in percentage of funds for construction generated internally will sharply turn upward in 1978 and continue upward through 1980. The schedules provided do not include the effect of the additional normalization which the Company requested. Again, assuming a return on equity of 13.2 percent, schedules provided by the Company show that the Company also expects its interest coverage to sharply turn upward in 1978 and continue upward through 1980. Again, the schedules provided do not include the effect of the additional normalization which the Company requested.

Therefore, the Commission majority repudiated the Company's own testimony as demonstrated by the staff which showed that the Company's financial situation, particularly cash flow and internal funds for construction, will significantly improve with the rate relief which the staff recommended and that additional normalization requested by the Company is unnecessary. Therefore, the majority has in this Report and Order repudiated its own standard for permitting additional normalization.

Late Payment Charge. The Commission was presented with the issue of continuing a late payment charge amounting to five percent on the first $50.00 delinquency and one percent thereafter. The Commission was not presented with an issue which provided for a late payment charge of a lesser or greater amount. The Company has not shown, by substantial or competent evidence, that a charge of five percent or of two percent, as approved by the majority, is a reasonable charge. Without adequate proof of the reasonableness of any such charge, the charge is in violation of 4 CSR 240-13.020(8) which states that a utility shall not assess an additional charge upon a customer by reason of the customer's failure to pay without proof of the reasonableness of such charge.

It is the opinion of this Commission that utilities are provided insulation from loss far exceeding that of any competitive business. This Commission permits a utility to charge a deposit to a new customer, a deposit to an existing customer for failure to establish good credit in five out of twelve months in the year, an additional deposit when monthly bills increase, a guarantor who is made legally responsible for a customer's bills, and termination after proper notice when a customer is delinquent in paying his or her account. The Commission also recognizes as a cost of doing business any bad debts which are experienced by the Company and substantiated in a rate proceeding. If utilities are willing to sacrifice any of the above mechanisms in dealing with customer delinquency, then it may be appropriate for this Commission to reconsider the imposition of late payment charges. However, as long as all of the above opportunities are permitted utilities by this Commission to recover payment for service in the absence of proof that any charge is or can be reasonable, I stand opposed to the imposition of a two percent late payment charge, or any percentage amount, by the Kansas City Power & Light Company on its customers in recovering a delinquent payment.

Excess Capacity. The majority concluded in this case that the Company had no "excess capacity" at this time. The issue of capacity was raised not only in this case but in the preceding case, Case No. ER-77-118. In that case the Commission stated, "the Commission cannot conclude that a 20 percent reserve margin is unreasonable" but the Company could "operate safely in the future with a reserve margin of less than 20 percent." The majority in this case seem to have accepted the Company's projections on growth and have failed to take into account factors which would appear to have a dampening effect on growth in the years ahead. The Company forecasted a load growth of 4 percent through 1981 and 5 percent thereafter. However, the Company's peak growth from 1974 to 1978 averaged 2.4 percent. The national 1978 average peak growth was only 2.7 percent. Too, the Commission has seemingly ignored the potential dampening effect on peak growth as a result of the new Armco curtailment contract and the peak alert program scheduled to begin in the summer of 1979. There appears to be no doubt that the Company's reserve levels are in excess of the 20 percent level and will remain above that level for the next ten years.

Both GSA and the Public Counsel have made a compelling argument that the Company recognizes its additional capacity and is seeking additional interchange sales which will result in profit to the shareholders. Yet when excess capacity is included in the rate base, the ratepayers are responsible for the cost of the additional plant and share none of the rewards enjoyed by the stockholders. To correct this inequity, the Commission should have recognized the validity of the proposed GSA adjustment which assumed that a portion of rate base is not designated to be used for retail sales and is, in fact, dedicated to additional interchange sales which inure to the benefit of the stockholders.

GSA also raised some interesting criticisms of the Company's planning organization which may create a situation which frustrates the goal of adequate but minimum reserves. At best, it appears to create a situation which calls for an overly conservative approach to planning in terms of having reserves which exceed this goal. The Commission has developed its own sophisticated load forecasting organization, and it would be prudent for the Commission to undertake a study of the expansion program and load projection capabilities of the Company. This step is necessary to assure that retail ratepayers do not bear the burden of excess capacity.

Rate of Return. I respectfully dissent from the majority opinion which approved a 13.40 percent return on common equity without making the adjustments to rate base reflected in my dissent. It is my opinion that GSA presented a compelling argument for a return on equity of no more than 13.20 percent, or a 9.40 percent overall return, and their recommendation was advanced in the context of reducing Company's rate base by several adjustments not reflected in this order. If the rate base adjustments had been made as reflected in my dissenting opinion, a return on common equity of 13.2 percent would have resulted in a revenue requirement of approximately 16 million dollars.

Respectfully submitted

Alberta C. Slavin

Alberta C. Slavin
Commissioner

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

CASE NO. ER-78-252

In the matter of Kansas City Power & Light Company for authority to file tariffs increasing rates for electric and utility steam service provided to customers in the Missouri service area of the company.

OPINION OF COMMISSIONER LEAH BROCK McCARTNEY
AGREEING IN PART
AND DISSENTING IN PART

Excess Capacity. Commissioner disagrees with the majority on this issue, and states that she would find that the Company does have "excess capacity" and the ratepayers should pay for only that reserve capacity which is necessary to insure continuous service. Commissioner believes that the amounts of capacity in excess of a 20 percent reserve level should not be included for purposes of establishing retail rates. To adjust the reserve allowable would adjust the revenue requirement downward by about $6,000,000.

Late Payment Charge. Commissioner disagrees with a late payment charge in that it penalizes the poor, and Company has not presented sufficient evidence to warrant setting the charge at the level of the order by the majority. The majority order permits the uncollectable accounts to be charged as a cost of doing business. Late payments by the poor could also be charged as a cost of doing business.

Normalization. Commissioner disagrees with the section of the order by the majority allowing the Company to normalize the pension costs, payroll and property taxes which Company capitalizes on its books. Commissioner feels that allowing these items to be normalized instead of being flowed through is a serious departure from precedent set by previous cases, and adds some $2,084,924 to the Company's revenue requirement which must be borne by the consumers. Company has not shown that it has serious cash flow problems such as should trigger the departure from precedent.

Rate of Return. Commissioner disagrees with the rate of return allowed by the majority and believes that the 12.6 percent (low suggested by Staff) to 13.2 percent rate of return would have been sufficient for Company to maintain its financial integrity and to provide adequate levels of service, as required by

Federal Power Commission v. Hope Natural Gas Company, 320 U.S. 591 (1944); and Bluefield Water Works and Improvement Company v. Public Service Commission, 262 U.S. 679 (1927).

The points upon which Commissioner dissents would have reduced the revenue requirement by a total of about $7.5 million.

Respectfully submitted,

Leah Brock McCartney

Leah Brock McCartney
Commissioner