COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

GENERAL ADJUSTMENTS IN ELECTRIC RATES OF KENTUCKY POWER COMPANY	)))	CASE NO. 8429

O R D E R

On December 29, 1981, Kentucky Power Company ("Kentucky Power") filed its statutory notice of adjustments to be made in its rates and tariffs effective January 18, 1982. The proposed adjustment in rates would increase Kentucky Power's revenue by approximately $34.9 million annually, or 23 percent. Based on the determination herein the revenues of Kentucky Power will increase by $16.6 million annually, an increase of 11 percent.

On December 30, 1981, the Commission suspended the proposed rate increase until June 18, 1982, in order to conduct public hearings and investigations into the reasonableness of the proposed rates. A hearing was scheduled for January 27, 1982, for the purpose of filing the testimony of Kentucky Power's witnesses, and Kentucky Power was directed to give notice to its customers of the proposed rates and the scheduled hearing pursuant to 807 KAR 5:025, Section 7.

Motions to intervene were filed by the Division of Consumer Protection in the Department of Law ("Attorney General"), The Floyd County Citizens' Association and certain of its members ("Low Income Residential Intervenors"), Armco, Inc., ("Armco"), and Pikeville Coal Company.

Public hearings were conducted at the Commission's offices in Frankfort, Kentucky, on May 11 and 12, 1982, for the purposes of cross-examination of Kentucky Power's witnesses and the witnesses of the intervenors, respectively. Briefs were filed by all parties wishing to do so on May 26, 1982.

COMMENTARY

Kentucky Power is a wholly-owned subsidiary of the American Electric Power Company ("AEP"), and serves approximately 140,000 consumers in 20 counties in eastern Kentucky. In addition to its retail consumers Kentucky Power serves two municipal power systems in Kentucky under rates authorized by the Federal Energy Regulatory Commission.

ADDITIONAL GENERATING CAPACITY REQUIREMENTS

Kentucky Power obtains its power from its own generation and the integrated AEP system. Kentucky Power presently has plans to purchase 15 percent undivided interest in the Rockport Generating Plant in Spencer County, Indiana, at an estimated cost of $311.6 million.

At the time of filing of the application in this matter, Kentucky Power chose not to reflect any of the cost associated with its participation in the Rockport Generating Plant and, therefore, that issue was not considered in this proceeding. The Commission does, however, view the reasonableness and appropriateness of Kentucky Power's planned generating capacity as a matter of ongoing concern.

On June 3, 1982, the Commission issued an Order in Case No. 8400, East Kentucky Power Cooperative, Inc., which further addressed the issue of future generating capacity needs and found that "a thorough, independent study of such issues should be undertaken, and should encompass all of the electric generating utilities within the Commission's jurisdiction."[1/] Kentucky Power will be considered in that study.

TEST PERIOD

Kentucky Power proposed and the Commission has accepted the 12-month period ending September 30, 1981, as the test period for determining the reasonableness of the proposed rates. In utilizing the historic test period the Commission has given full consideration to appropriate known and measurable changes.

VALUATION

Kentucky Power presented the net original cost and

1/ Order issued June 3, 1982, Case No. 8400, East Kentucky Power Cooperative, Inc., page 4.

capital structure as the valuation methods in this case. The Commission has given due consideration to these and other elements of value in determining the reasonableness of the proposed rates and charges.

Net Original Cost

In Section V of the application, Schedule 2, page 1 (revised), Kentucky Power proposed an end of test period jurisdictional rate base of $394,663,299. As a part of the end of test period net original cost rate base Kentucky Power proposed to include $7,986,904 of other investments in Franklin Real Estate Company ("Franklin Realty"). This was the amount of property for which Kentucky Power had a plan for specific utility use. At the end of the test period, Kentucky Power had a total balance in other investments, account 124, of $14,500,649. Of this amount $447,944 was Kentucky Power's share of the Dumont Test Site which has been included in the rate base herein. Kentucky Power and other AEP system companies use Franklin Realty to purchase and hold land which may be used at a future date in the utility business. The stated purpose of this arrangement is to avoid the attachment of Kentucky Power's mortgage lien on property acquisitions which have not been placed in service in the event plans change and the property is sold. Kentucky Power argued that it has specific plans to use a portion of the property held in the name of Franklin Realty and that this property should be included in the rate base as plant held for future use.

Kentucky Power argued further that some of this property was already in service but had not yet been transferred to plant in service.

The nature of the arrangement with Franklin Realty and the failure to transfer the property to Kentucky Power indicate that the intended use of the property is speculative. Therefore, in accordance with its policy established in the last Kentucky Power rate case, the Commission will disallow the proposed adjustment to include a part of this investment in the rate base.

Adjustments were proposed by Kentucky Power to reflect the depreciation expense adjustment in the accumulated provision for depreciation and to include the effect of the Kentucky Power proposed expense adjustments on cash working capital. Moreover, Kentucky Power proposed to increase the year-end value of materials and supplies by $10,939,446 to reflect its coal supply inventory objective of 70 days at the current cost and the value of oil inventory at the current cost.

The Commission concurs with the proposed adjustment to the accumulated provision for depreciation. The adjustment to working capital has been modified to reflect only the pro forma operating expense adjustments allowed herein.

The proposed adjustment to materials and supplies was based on two assumptions. First, the level of coal inventory at the end of the test period was lower than normal and a more reasonable level of coal inventory would be the equivalent of

a 70-day supply. Second, the value of inventory should reflect the current cost of coal and oil. The witness for the Attorney General, Mr. Robert J. Henkes, did not take issue with the second assumption, but proposed an alternative 53.5-day supply as the appropriate level of inventory. Reducing the level of inventory from a 70-day supply to a 53.5-day supply would decrease Kentucky Power's proposed adjustment by approximately $5 million.

The primary concern of the Commission in considering the proposed adjustments is the necessity of maintaining a 70-day coal supply. Kentucky Power called Mr. John P. Apel, Vice President of Regulatory Affairs, Coal, for the AEP Service Corporation, to respond to questions on the coal inventory. Mr. Apel testified:

> ...some of the factors entered into it are the transportation delivery systems and reliability of them, that is whether or not we anticipate various problems. Other factors that enter into it are potential strikes not only of the UMWA, but of transportation systems or other unions such as construction or electrical units. But it is an experience factor that has proven over a period of time to give that reliability.[2/]

Mr. Apel testified further that the actual experience reflected a lower inventory level over the past 5 years due to various circumstances. However, no evidence was given as to how these factors result in an optimum level of inventory of a 70-day supply.

2/ Transcript of Evidence, May 11, 1982, Volume I, page 197.

Based on information provided in response to information requests, it is apparent that the average level of inventory over the past 5 calendar years has been approximately 60 days. The Commission is of the opinion that this is a reasonable level of inventory and should be used in this instance.

The Commission is of the opinion that the value of coal and oil inventory to be included in the rate base should include the actual value of coal and oil on hand at the end of the test period.

Therefore, in determining the overall adjustment to materials and supplies the Commission will disallow the repricing of oil inventory at the July 1981 price and the repricing of coal inventory on hand at the end of the test period. The additional coal supply required to bring the inventory to a 60-day level has been included at the current price of $35.752 per ton.

All other elements of the net original cost rate base have been accepted as proposed by Kentucky Power. The net original cost rate base devoted to Kentucky jurisdictional electric service is determined by the Commission to be as follows:

Plant in Service	$421,565,006
CWIP	70,025,003
Plant Held for Future Use	52,777
Total Utility Plant	$491,642,786

Add:	
Materials and Supplies	$ 31,409,822
Prepayments	149,243
Cash Working Capital	20,896,622
Dumont Test Site	445,449
Subtotal	$ 52,901,136
Less:	
Reserve for Depreciation	$106,751,859
Customer Advances and Deposits	3,464,490
Accumulated Deferred Taxes	40,064,128
	$150,280,477
Net Original Cost Rate Base	$394,263,445

Capital Structure

In Section V of the application, Schedule 2, page 2 (revised), Kentucky Power proposed a Kentucky jurisdictional capital structure of $405,870,364. In determining the proposed capital structure, Kentucky Power made adjustments for a new issue of long-term debt of $30 million and for common equity advances from AEP of $10 million. Short-term debt was reduced by $30 million to reflect retirements and increased by $10,939,466 to reflect the adjustment discussed in the previous section of this Order, for the revaluation of the fuel inventory and additional coal supply.

The Commission has accepted the proposed adjustments for the new debt issue, the equity advance, and the reduction in short-term debt. In accordance with the determination in the previous section regarding the revaluation of the coal supply, the Commission has reduced Kentucky Power's adjustment by $4,108,704 to reflect the lower level of inventory and the weighted average price.

Kentucky Power proposed an adjustment to reduce the capital structure by $13,266 for non-utility property. Based on the determination in the preceding section to exclude the investment in Franklin Realty from the rate base the Commission has likewise excluded the total investment of $14,052,705 at the end of the test period.

The Commission has determined Kentucky Power's adjusted capital structure to be as follows:

	Amount	Percent
Long-Term Debt	$221,717,896	57.2
Short-Term Debt	11,118,720	2.9
Common Equity	154,983,261	39.9
Total	$387,819,877	100.0

In determining the capital structure, the Job Development Investment Credit ("JDIC") of $26,488,818 has been allocated to each component on the basis of the ratio of each component to total capital excluding JDIC.

REVENUES AND EXPENSES

In Section V, Schedule 2, of the application, Kentucky Power proposed numerous adjustments to the test year operating revenue and expenses. The Commission is of the opinion that the proposed adjustments are generally proper and acceptable for rate-making purposes with the following modifications:

Production Plant Maintenance

Kentucky Power proposed two adjustments to increase production plant maintenance to a normalized level. The first

adjustment of $1,299,207 was to bring the level of operating expense accrued and reflected in operating statements to the level of actual cost incurred in the test period. Second, Kentucky Power proposed to increase the test year actual cost by $299,856 to reflect the normalized level of maintenance of $10.4 million. Whether the adjustment is made in one step or two the overall effect of Kentucky Power's proposal is to include a total of $10.4 million of production plant maintenance in expenses for determining the revenue requirements.

The primary concern of the Commission in analyzing this proposed adjustment is that the revenue requirements include a reasonable level of cost associated with production plant maintenance. As the Commission has recognized in the past, Kentucky Power has only one generating station, which results in peaks and valleys in maintenance costs depending upon the amount of cycle maintenance occurring in a particular period. For this reason, Kentucky Power attempts to accrue this maintenance cost monthly based on its best estimate of costs for a 12-month period. At the end of each calendar year an adjustment is made to reflect the actual cost for that period.

In this proceeding Kentucky Power has requested that the Commission establish the level of production plant maintenance at $10.4 million, but has failed to supply the facts relied upon in arriving at the estimated normalized production plant maintenance cost. In response to inquiries at the hearing on May 11, 1982, Kentucky Power's witness, Mr. C. R.

Boyle, explained the basic accounting principle of normalizing costs but was unable to explain the derivation of the estimated normalized cost.

Based on the evidence of record in this matter the only reliable production plant maintenance costs available to the Commission are the annual costs for the past 5 years. These data indicate that the average cost for the past 3 calendar years was $9.4 million. Although this is not the best method of adjusting maintenance expense, it should be fairly representative of expected normal costs. Therefore, test year power production plant maintenance has been increased by $495,995 for the jurisdictional component of this additional cost.

Rate Case Expense

Kentucky Power proposed an adjustment to rate case expense based on the estimated cost of this rate case and the unamortized balance of its last rate case, less the rate case expense included in the test period, amortized over an 18-month period. The estimated cost of this rate case was $85,000. The Commission requested that Kentucky Power provide monthly reports of the actual cost incurred. Through May 31, 1982, Kentucky Power had incurred actual expenses of $56,650.

The Commission is of the opinion that the adjustment is reasonable with the exception of the amortization period. In accordance with past policy the Commission has amortized the rate case expense over a 2-year period.

The witness for the Attorney General, Mr. Henkes, opposed the inclusion of the remaining amortization of rate case expenses from Kentucky Power's last rate case, because those costs have been included in the rates currently in effect. The Commission finds this position to be inconsistent with its policy of allowing amortization of rate case expenses for rate-making purposes, and believes that this unamortized cost should be included in this case.

Non-operating Income and Deductions

Kentucky Power proposed an adjustment to include in operating revenue and expenses the income and costs associated with leases of property included in other investments. This adjustment was designed to be consistent with the inclusion of other investments in the rate base. In accordance with its decision to deny the inclusion of other investments in the rate base, the Commission has denied the adjustment to include the revenue and expense associated with that property.

Kentucky Power's proposal to include charitable contributions in test year operating expenses was presented by Mr. Robert Matthews, President of Kentucky Power. In his testimony Mr. Matthews stated that these contributions are expected of Kentucky Power, and are proper and essential costs of doing business. However, Mr. Matthews did not offer any tangible evidence as to how these costs were of benefit to the consumers of Kentucky Power. The Commission has consistently denied the cost of charitable contributions as an operating

expense for rate-making purposes and finds no justification in this proceeding to depart from that policy.

Transmission and Distribution Maintenance

Kentucky Power proposed an adjustment of $2,493,330 to increase annual operation and maintenance expenses for additional transmission and distribution maintenance, which was later reduced by approximately $50,000. The purpose of the proposed adjustment was to provide revenues to allow for maintenance work which has been deferred in recent years.

In response to a request for additional information, the witness for Kentucky Power, Mr. James B. Boyer, Line and Station Superintendent, stated:

> ...the hiring of additional employees and the acquiring of competitive bids on additional contract work will commence upon receipt of a final Order in this case granting this requested adjustment assuming, however, the overall level of earnings permitted by that Order is sufficient to support such increased maintenance without threatening the integrity of the company.3/

In its brief of May 26, 1982, Kentucky Power commented further on this issue and attempted to clarify the response of Mr. Boyer as follows:

> Accordingly, in its response to Staff Interrogatory No. 14, the Company was merely trying to indicate that it believes it must retain the flexibility to continue the current cut-back in maintenance activity, regardless of the maintenance expense included in test year expenses, if the overall level of rate relief authorized in this

---

3/ Kentucky Power response to information request dated March 16, 1982, item 14, page 2 of 9.

> case does not prove sufficient to halt the current decline in the Company's financial integrity.4/

It is apparent to the Commission that the maintenance expense which Kentucky Power proposes will not be incurred unless the conditions set by Kentucky Power are met. Therefore, the Commission finds that the extent to which this expense may be incurred is speculative and neither sufficiently known nor measurable. The proposed adjustment has therefore been disallowed.

Interest Synchronization Expense Adjustment

Kentucky Power proposed an adjustment to reduce state and federal income taxes by $1,579,161 for the effects of the increase in annual interest expense. In determining the adjustment, Kentucky Power applied long-term and short-term debt interest rates of 10.12 percent and 17.79 percent, respectively, to the adjusted level of these capital components in the proposed capital structure. The Commission has modified this adjustment to reflect the projected interest cost on the adjusted capital structure allowed herein and the allowed cost rates. Moreover, in making this adjustment the Commission has modified Kentucky Power's proposal by basing the projected interest expense on the debt components including the allocation of JDIC as has been its policy in previous cases.

4/ Brief of Kentucky Power, page 39.

Amortization of Excess Deferred Taxes

As a part of his testimony at the hearing on May 11, 1982, Kentucky Power's witness, Mr. William N. D'Onofrio, proposed an adjustment of $65,649 to amortize the "surplus" deferred federal income taxes resulting from the reduction in 1979 in the corporate tax rate from 48 percent to 46 percent. The adjustment would amortize the excess deferred federal income taxes over the remaining life of the related property which was estimated to be 22 years.

The Attorney General's witness, Mr. Henkes, proposed an adjustment for the same purpose. However, he used an accelerated amortization period of 5 years, arguing that this would return the excess to the ratepayers who funded it.

The federal tax laws require regulatory commissions to normalize, for rate-making purposes, the income tax effects of differences between book and tax depreciation arising from use of accelerated depreciation for tax purposes. Thus, in the initial years of an asset's life the book tax expense for rate-making purposes is greater than the actual federal tax liability. In the later years, the book tax expense is less than the actual tax liability. Thus, the income taxes deferred on differences between book and tax depreciation prior to January 1, 1979, were provided at a 48 percent tax rate. Based on existing tax rates, the actual tax liability will be paid at a 46 percent tax rate when these differences reverse.

The theoretical argument for providing deferred taxes

is that the ratepayer should be required to pay a normalized level of income tax expense through rates. The normalized level is based on the tax rate in effect at the time the deferral occurs. An assumption inherent in computing the amount of deferred taxes provided is that the tax rate will remain at 48 percent. This has not occurred. Thus, the difference between the amount deferred at the 48 percent rate and the amount to be paid at the 46 percent rate can be characterized as excess deferred taxes.

Based on the foregoing analysis, the Commission concludes that the Attorney General's recommendation to use an accelerated amortization of the excess deferred taxes should be adopted. Therefore, the Commission will decrease deferred federal income taxes by $288,805.

Kentucky Power and the Attorney General recommended that a corollary adjustment be made to the accumulated deferred taxes to recognize 1 year's amortization. The effect of this recommendation is to increase rate base by $288,805. The adjustment proposed by Kentucky Power and the Attorney General is consistent with the adjustment the Commission makes to bring depreciation expense and depreciation reserve to an end of period level. Therefore, the Commission concludes that the recommendation to decrease the deferred tax reserve account by an amount equal to the amortization for the first year should be accepted.

The Commission should point out that if the tax rate is increased in the future, equity will demand that any deficiency in the deferred tax reserve will have to be provided through rates at that time.

Adjustment to AFUDC

Kentucky Power proposed an adjustment to increase AFUDC by $247,910 to reflect the test year-end CWIP level. In determining the amount of the adjustment Kentucky Power applied the rate at which it is presently accruing AFUDC, which is 12 percent.

The Attorney General's witness, Mr. Henkes, proposed an alternative adjustment of $1,611,367 which was based on the overall after-tax rate of return.

The Commission in accordance with past policy has adjusted AFUDC based on the overall rate of return allowed herein and the test year-end CWIP balance subject to AFUDC. This results in an increase to AFUDC of $1,666,563.

Economic Recovery Tax Act of 1981

Mr. D'Onofrio requested that the Commission allow Kentucky Power to implement the requirements of the Economic Recovery Tax Act of 1981 ("ERTA") in a manner consistent with the provisions of the Act. Under ERTA, a utility is required to normalize the tax timing differences resulting from all differences between book depreciation and tax depreciation. The rate levels determined in this Order include sufficient revenues to meet the normalization requirements of ERTA.

Therefore, the Commission approves Kentucky Power's request to implement the requirements of ERTA.

Institutional Advertising

During the test year, Kentucky Power incurred $185,613 in advertising costs. In its detailed analysis, Kentucky Power classified these costs as "conservation advertising." In response to a request at the May 11, 1982, hearing, Kentucky Power provided the dialogue from television and radio advertisements labeled "System Technology" and "Coal."

Kentucky Administrative Regulation 807 KAR 5:016, Section 4, states that "advertising expenditures for political, promotional, and institutional advertising by electric or gas utilities shall not be considered as producing a material benefit to the ratepayers and, as such, those expenditures are expressly disallowed for rate-making purposes." Moreover, Section 5 places the burden of proof upon the utility to show that any advertising is of material benefit to the ratepayers.

The advertisements labeled "System Technology" and "Coal" by Kentucky Power are clearly institutional under the definition of 807 KAR 5:016 and contain no message to Kentucky Power consumers to conserve energy. Furthermore, the Commission finds no evidence to support the classification of the shared AEP advertising costs as conservation advertising. Therefore, the Commission has reduced the test year operation and maintenance expenses by $47,363 to exclude those costs.

After applying the combined state and federal income tax rate of 49.24 percent to the accepted pro forma adjustments, the Commission finds that net operating income should be increased by $2,607,266 to $39,909,104 as follows:

	Actual Test Year	Adjustments	Adjusted Test Year
Operating Revenues	$152,310,920	$ 7,044,665	$159,355,585
Operating Expenses	120,876,135	6,103,962	126,980,097
AFUDC Offset	5,825,214	1,666,563	7,533,616
Net Operating Income	$ 37,259,999	$ 2,607,266	$ 39,909,104

RATE OF RETURN

Kentucky Power proposed to use the actual capital structure proportions as of the end of the test year adjusted for known and measurable changes to calculate rate of return. Mr. James Rothschild, witness for the Attorney General, accepted these proportions. The Commission concludes that the actual capital structure proportions as adjusted in the valuation section of this Order should be used to calculate rate of return. These proportions are similar to Kentucky Power's actual capital structure in recent years; to the forecasted capital structure with rate relief presented in the testimony of Mr. Henry Fayne, Assistant Controller, AEP Service Corporation, witness for Kentucky Power; and to industry averages.

Kentucky Power proposed to use the embedded cost rate for long-term debt as of the end of the test year adjusted for a mortgage bond issue in January 1982. It proposed to use a

cost rate of 17.79 percent for short-term debt. The short-term debt cost rate was calculated by adjusting an estimated 90-day commercial paper rate of 15.5 percent for commitment fees and compensating balances. The Commission is of the opinion that the adjustment to recover approximately $207,156 of commitment fees is reasonable.[5/] However, the Commission does not find the adjustment for compensating balances to be appropriate because a return is allowed in this case on the capital supporting those balances. Mr. Rothschild used Kentucky Power's long-term debt cost rate and proposed a short-term debt cost rate of 15.92 percent. Interest rates for 90-day commercial paper averaged 14.9 percent for the year ended April 1982.[6/] The Commission is of the opinion that Kentucky Power's proposed cost rate for long-term debt of 10.12 percent is reasonable and that a cost rate of 16.75 percent is reasonable for short-term debt.

Kentucky Power requested a rate of return on common equity capital of 17.5 percent. Its witness, Dr. John O'Donnell estimated the cost of common equity in the range of 17 to 18 percent. His recommendation was based on a historical risk

---

[5/] Kentucky Power response to Staff Request No. 2, item 3, page 2 of 2.

[6/] Average of monthly rates for 12 months ended April 1982, Federal Reserve Statistical Release.

premium analysis, a discounted cash flow ("DCF") analysis, and a capital asset pricing model ("CAPM") analysis. The Commission notes several deficiencies in Dr. O'Donnell's testimony. His risk premium analysis uses current interest rates, an estimated average future inflation rate of 10 percent and a historical equity risk premium of 9 percent. His CAPM analysis uses similar data plus a range of .6 to .75 for beta, a measure of non-diversifiable risk. In the Order on rehearing in General Telephone Company, Case No. 8045, dated September 4, 1981, the Commission stated that it was not convinced that the cost of common equity will at every point in time exceed the current cost of long-term debt and that a valid use of the risk premium method requires the examination of appropriate debt issues over a sufficient period of time to correct for abnormalities within that period. Dr. O'Donnell's risk premium and CAPM analyses combine current interest rates with an average risk premium calculated over a time period during which financial market conditions were substantially different from current conditions The Commission is of the opinion that Dr. O'Donnell's risk premium and CAPM analyses are inappropriate because they do not correct for market abnormalities and should not be relied upon in determining a fair rate of return on equity.

Dr. O'Donnell used Value Line's dividend growth rate projection in his DCF analysis. Value Line projected dividend growth over a 3- to 5-year period. The growth rates used by

Dr. O'Donnell included Value Line's expectation that earned rates of return on electric utilities will increase during that period. Dr. O'Donnell's DCF model assumed a steady dividend growth rate to infinity. His use of the Value Line growth rates in this case tended to overstate the cost of common equity.

Mr. Rothschild determined a cost of common equity of 14.5 percent to 15.0 percent. He used a DCF analysis and a comparable earnings analysis to estimate the cost of common equity. Mr. Rothschild used the retention ratio times the return on book value (or b times r) method to estimate the expected dividend growth rate in his DCF analysis. In applying the b times r method he used historical achieved earnings as a proxy for the return on book equity which investors expect in the future. He adjusted the resulting growth rate down on the basis that investors expect new issues of equity to yield net proceeds below book value. Kentucky Power's witness, Mr. Eugene Meyer, testified that, in his judgment, investors expect utility earnings to improve over past earnings. To the extent investors expect improvement in the return on book equity and in the market price to book value ratio, Mr. Rothschild's DCF analysis will understate the cost of common equity. Having reviewed all of the evidence of record the Commission concludes that a range of returns on equity of 14.5 percent to 16 percent is fair, just and reasonable.

Kentucky Power's witnesses, Mr. Meyer and Mr. Gerald Maloney, testified that Kentucky Power must improve its interest coverage ratios, cash flow, and debt ratios to avoid having its first mortgage bonds downrated from A to Baa. Mr. Meyer stated that construction requirements for the 1981 through 1985 period, excluding the Rockport Plant, were estimated at $380 million.[7/] Thus, Kentucky Power faces a considerable external financing requirement at this time. Mr. Maloney stated that Kentucky Power had failed to achieve earnings equal to dividends in any of the past 3 years and that Kentucky Power's first mortgage bond interest coverage was below the indenture requirement of 2.0 times to issue additional mortgage bonds.[8/]

Mr. Fayne presented forecasted financial data for Kentucky Power for the year ended June 30, 1983. The forecasted financial statements showed a return on common equity of 16.89 percent and total interest coverage of 2.77 times assuming the full increase requested were allowed. This projected interest coverage ratio is within Standard and Poor's range of 2.5 times to 3.5 times for A-rated bonds.[9/]

7/ Meyer prefiled testimony, page 7.

8/ Transcript of Evidence, May 11, 1982, Volume I, pages 56 and 58.

9/ Meyer prefiled testimony, exhibit EWM-5.

The Attorney General proposed that Mr. Fayne's forecast be disregarded by the Commission because of the difficulty inherent in projecting a utility's performance level. The Commission is of the opinion that known historical data should be relied upon more than forecasted data. However, both historical and forecasted data show Kentucky Power's need for improved earnings to maintain a strong financial position.

With the capital structure and debt costs approved in this Order, the range of returns on equity of 14.5 percent to 16 percent provides before tax interest coverage ratios of approximately 2.8 times to 3.0 times.[10/] These ratios are well within the range acceptable for A-rated bonds. Therefore, the Commission is of the opinion that a return on equity in this range will maintain Kentucky Power's financial integrity and permit it to attract capital at reasonable costs.

Because of its substantial construction program and continuing inflation in utility costs, Kentucky Power may experience attrition in earnings. In the year following each of its last three rate cases, Kentucky Power has achieved a rate of return on equity approximately 1.4 percentage points below the rate of return authorized by the Commission.[11/] However, the known and measurable adjustments to test year operating results allowed in this case provide some allowance

---

10/ Based on the allowed interest expense of $24,300,237, equity capitalization of $154,983,261, and an adjustment factor for taxes of 1.97589409.

11/ Matthews prefiled testimony, exhibit REM-1.

for increasing costs and capital investment. Further, Mr. Fayne forecasted rapid growth for Kentucky Power's retail sales revenue during the upcoming year.[12/]

In fixing Kentucky Power's revenue requirements the Commission believes that consideration must be given to the economic circumstances faced by Kentucky Power's customers. However, its customers must realize that the law requires and equity demands that Kentucky Power be given rates which will allow it to earn a reasonable return on equity and provide adequate and efficient service. The Commission concludes that the interest of both the consumer and the stockholders of Kentucky Power can best be served by basing the required increase in revenue on a 15.5 percent return on equity, the top of the range. Moreover, the Commission is of the opinion that with efficient management Kentucky Power can achieve a return on equity within the range of 14.5 percent to 16.0 percent.

The Commission has determined that Kentucky Power needs additional annual operating income of $8,413,538 to produce a rate of return on common equity of 15.5 percent based on the adjusted historical test year. After the provision for state and federal income taxes there is an overall revenue deficiency

---

12/ Fayne prefiled testimony, page 5.

of $16,624,260 which is the amount of additional revenue granted herein. The net operating income required to allow Kentucky Power to pay its operating expenses and fixed costs and have a reasonable amount for equity growth is $48,322,642. The required operating income and the increase allowed herein is computed as follows:

Net Operating Income Found Reasonable	$48,322,642
Adjusted Net Operating Income	$39,909,104
Net Operating Income Deficiency	$ 8,413,538
Additional Revenue Required	$16,624,260

The additional revenue granted herein will provide a rate of return on the net original cost established herein of 12.26 percent and an overall return on total capitalization of 12.46 percent.

The rates and charges in Appendix A are designed to produce gross operating revenue of $175,979,845 including other operating revenue of $1,257,426.

COST OF SERVICE

Kentucky Power filed an embedded class cost of service study through its witnesses, Messrs. Louis Jahn and Dennis Bethel. There was considerable disparity between Kentucky Power's class rates of return, which range from 3.86 percent for small GS fixed to 18.64 percent for outdoor lights. The overall Kentucky Power rate of return was shown to be 8.98 percent.

Armco witness, Mr. George Gerasimou, also filed the results of four separate cost of service studies. The primary difference in these studies and the Kentucky Power study is in the method of allocation of generation costs. The Armco studies used the class average of the 12 monthly coincident peaks, the class coincident peaks, the class non-coincident peaks and the average and excess demand methods to allocate generation costs. The Kentucky Power study used the class average of the 12 monthly coincident peaks. Armco used the same allocation factors as Kentucky Power to distribute all other costs across the customer classes. The results of all of the studies were similar.

The Commission accepts the general proposition that some of the rate classes are not contributing a reasonable share of the cost to serve them. The action necessary to narrow the disparity in the class rates of return is to deviate from the historical allocation of revenues. This will be addressed in the next section of the Order. However, in the future the Commission will be reluctant to deviate greatly from the historical allocation of revenue until time-differentiated cost of service studies are submitted by Kentucky Power. The Commission is concerned that the class rates of return may vary, some of them significantly, from current rates when a time-differentiated cost of service model is used.

The Commission notes that Kentucky Power did not adequately address the question of the relative risk associated with serving different classes of customers. The Commission is of the opinion that the risk associated with customer classes is greater in some classes than in others.

In a recent proceeding before the Commission in Case No. 8397, Henderson-Union Rural Electric Cooperative Corporation ("Henderson-Union"), a classic example of that risk was realized. Anaconda Aluminum Company notified Henderson-Union on May 4, 1982, that it was reducing its load by approximately one-third for approximately 12 months. This load reduction resulted in a substantial loss of income to Henderson-Union. Thus, in this proceeding the Commission serves notice to Kentucky Power, and all other utilities subject to its jurisdiction, that the relative risk of serving each customer class must be explicitly addressed in any method used to determine class revenue requirement in future proceedings.

REVENUE ALLOCATION

Based on the results of the class cost of service study, Kentucky Power has proposed to distribute the increased revenues so that the classes which provided lower rates of return would be allocated a greater proportion of the increased revenues than they had been assigned historically. Kentucky Power also proposed to mitigate any sudden change in rates by placing a maximum percentage increase of 25-27

percent on any particular class. Armco, based on the results of its cost of service studies, proposed an allocation of the increased revenues similar to that of Kentucky Power. However, the Armco proposal would result in an approximately 35 percent increase to the residential class and a lesser percentage increase to the other classes.

In the Commission's final Order in Administrative Case No. 203, Rate-making Standards Identified in the Public Utility Regulatory Policies Act of 1978, this Commission held that costs should be the basis for rates. Also in that Order, the Commission recognized another of its objectives--rate continuity. Given the Commission's objectives of cost-based rates and rate continuity, the Commission finds the gradual approach for reallocating class revenues as proposed by Kentucky Power to be more reasonable than the proposal by Armco. Therefore, the increased revenues should be allocated in similar proportions to those proposed by Kentucky Power.

RATE DESIGN

Kentucky Power proposed no rate design changes. In the RS tariff, Kentucky Power proposed to flatten the steps of the energy charge and to increase the monthly service charge from $3 to $5. None of the intervenors entered any objections to these proposals. The Commission agrees with Kentucky Power's flattening of the energy charge. The Commission is of the opinion that the monthly service charge should be increased by

the percentage of increase allowed in this Order.

Kentucky Power proposed to add a delinquent payment charge of 5 percent to the RS tariff and to increase the delinquent payment charge in the LGS and QP tariffs from 2 to 5 percent. Low Income Residential Intervenors opposed the charge for the RS tariff. Kentucky Power's proposal would equalize delinquent payment charge for four of its tariffs. It is also consistent with the delinquent payment charges of the majority of the electric utilities in Kentucky.

Kentucky Power's witness, Mr. Robert Bibb, testified that the delayed payment charge would tend to increase revenue to Kentucky Power, but that he did not know the size of the revenue effect.[13/] To estimate an amount of revenue to be realized from the delayed payment charge, the Commission has made the following calculation: The forfeited discounts during the test year of $232,522[14/] were approximately 7 percent of the possible forfeited discounts of $3,294,494.[15/] Pro forma possible forfeited discounts were determined to be $7,251,193, which is 5 percent of the per book total in the

---

13/ Transcript of Evidence, Volume II, May 12, 1982, pages 39-40 and 47.

14/ Kentucky Power response to Staff Request No. 1, item 2, Trial Balance, Account No. 450, sheet 6 of 127.

15/ This amount determined by multiplying the charges of 2 percent for tariffs LGS and QP and 5 percent for tariffs GS and IP times the per book total revenue for each tariff from the Comparative Billing Analysis, Section III page 13 of 20, Sales to Kentucky Jurisdictional customers, filed 12/29/81.

Comparative Billing Analysis for tariffs RS, GS, LGS, QP and IP. The Commission estimated pro forma forfeited discounts of $7,251,193 times 7 percent, or $507,583. Therefore, the Commission allocated $275,051 ($507,583 less $232,532) of the increase in this case to forfeited discounts. The Commission is therefore of the opinion that the delinquent payment charge should be as stated in Appendix A.

In its brief Armco stated that the power factor provision in Kentucky Power's IP rate schedule was not meaningful as it provides for neither a penalty when the customer's power factor falls below the designated level of 85 percent nor for a reward when it exceeds it. Armco urged the Commission to direct Kentucky Power to place language in the IP tariff setting forth a requested schedule of penalties and rewards.[16/] Since the demand charge in Kentucky Power's IP tariff is per "KVA" (not "KW") there is an automatic penalty for a low power factor and an automatic credit for a high power factor. Therefore, the Commission is of the opinion that the proposal of Armco should be denied.

Kentucky Power has two experimental tariffs, RS-TOD and RS-LM-TOD, which are tied to the RS tariffs by a methodology approved in its previous rate case, Case No. 7687. It is the opinion of the Commission that Kentucky Power should submit

---

16/ Brief of Armco, page 9.

within 30 days of the date of this Order the two experimental TOD rate tariffs which are to be tied, under the methodology approved in Case No. 7687, to the RS rates established in this Order.

SUMMARY

The Commission is of the opinion and finds that the rates in Appendix A are the fair, just and reasonable rates for Kentucky Power which should produce gross annual revenue of approximately $175,979,845. The Commission further finds that the rates of return granted herein are fair, just and reasonable and will provide for the financial obligations of Kentucky Power with a reasonable amount remaining for equity growth.

The rates proposed by Kentucky Power would produce revenue in excess of that found reasonable herein and should be denied upon application of KRS 278.030.

IT IS THEREFORE ORDERED that the rates in Appendix A be and they hereby are approved for service rendered by Kentucky Power on and after June 18, 1982.

IT IS FURTHER ORDERED that the rates proposed by Kentucky Power be and they hereby are denied.

IT IS FURTHER ORDERED that within 30 days from the date of this Order Kentucky Power shall file with the Commission the RS-TOD and RS-LM-TOD tariff sheets which are to be tied, under the methodology approved in Case No. 7687, to the RS rates established in Appendix A.

IT IS FURTHER ORDERED that within 30 days from the date of this Order Kentucky Power shall file with the Commission its revised tariff sheets setting out the rates approved herein.

Done at Frankfort, Kentucky, this 18th day of June, 1982.

PUBLIC SERVICE COMMISSION

Chairman

Vice Chairman

Commissioner

ATTEST:

Secretary

APPENDIX

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 8429 DATED JUNE 18, 1982

The following rates and charges are prescribed for the customers in the area served by the Kentucky Power Company. All other rates and charges not specifically mentioned herein shall remain the same as those in effect under authority of this Commission prior to the date of this Order.

TARIFF R. S.
(Residential Service)

RATE.

Service Charge	$3.35	per month
Energy Charge		
First 500 kwhrs per month	4.135	¢ per kwhr
Next 1000 kwhrs per month	3.635	¢ per kwhr
Over 1500 kwhrs per month	3.436	¢ per kwhr

MINIMUM CHARGE.

The Service Charge.

DELAYED PAYMENT CHARGE.

This tariff is net if account is paid in full within 15 days of date of bill. On all accounts not so paid an additional charge of 5 percent of the unpaid balance will be made.

TARIFF G. S.
(General Service)

RATE.

Service Charge		
Non Demand Metered Customers	$8.35	per month
Demand Metered Customers	$9.45	per month

Energy Charge

Kwhrs equal to first 50 times kw of monthly billing demand	5.758¢ per kwhr
Kwhrs equal to next 150 times kw of monthly billing demand	4.758¢ per kwhr
Kwhrs in excess of 200 times kw of monthly billing demand	3.728¢ per kwhr

DELAYED PAYMENT CHARGE.

This tariff is net if account is paid in full within 15 days of date of bill. On all accounts not so paid an additional charge of 5 percent of the unpaid balance will be made.

CREDITS MODIFYING RATE.

Bills computed under the rate set forth herein will be modified by credits as follows:

(A) Delivery Voltage.

The rate set forth in this tariff is based upon the delivery and measurement of transformed energy. When the measurement of energy is made at the primary voltage of the transmission or distribution line serving the customer, the kwhrs as measured will be multiplied by .95.

(B) Equipment Supplied by Customer.

When the customer furnishes and maintains the complete substation equipment including any and all transformers and/or switches and/or other apparatus necessary for the customer to take his entire service at the primary voltage of the transmission or distribution line from which service is to be received, a credit of $0.26 per kw of monthly billing demand will be applied to each monthly net bill.

MINIMUM CHARGE.

The Service Charge.

Any industrial and coal mining customer contracting for 3 phase service after October 1, 1959, shall contract for capacity sufficient to meet their normal maximum requirements in kw, but not less than 10 kw. Monthly billing demands of these customers shall not be less than 60 percent of contract capacity and the minimum monthly charge shall be $3.63 per kw of monthly billing demand, subject to applicable equipment credit and fuel adjustment clause, plus the service charge.

TERM OF CONTRACT.

Annual.

SPECIAL TERMS AND CONDITIONS.

This tariff is also available to customers having other sources of electrical energy supply but who desire to purchase service from the company. Where such conditions exist the customer shall contract for the maximum amount of demand in kw which the company might be required to furnish, but not less than 3 kw. The company shall not be obligated to supply demands in excess of that contracted for. In the event that the customer's actual demand, as determined by demand meter or indicator, in any month exceeds the amount of his then existing contract demand, the contract demand shall then be increased automatically to the maximum demand so created by the customer. Where service is supplied under the provisions of this paragraph, the billing demand each month shall be the contract demand instead of billing demand defined under paragraph "Measurement of Energy and Determination of Demand" and the minimum charge shall be as follows:

Service Charge	$ 9.45	per month
First 3 kw or fraction thereof of contract demand	$17.92	per month
Each kw of contract demand in excess of 3 kw.....	$ 3.60	per month per kw

TARIFF L. G. S.
(Large General Service)

RATE.

Service Charge	$62.00	per month
Energy Charge		
Kwhrs equal to the first 30 times the kva of monthly billing demand	6.281¢	per kwhr
Kwhrs equal to the next 170 times the kva of monthly billing demand	4.038¢	per kwhr
Kwhrs in excess of 200 times the kva of monthly billing demand	3.134¢	per kwhr

MINIMUM CHARGE.

This tariff is subject to a minimum monthly charge equal to the sum of the service charge plus $3.40 per kva of monthly billing demand. The minimum monthly charge so determined shall be subject to (a) adjustments as determined under the "Fuel Clause," (b) credits as determined under clause entitled "Equipment Supplied by Customer."

DELAYED PAYMENT CHARGE.

This tariff is net if account is paid in full within 15 days of date of bill. On all accounts not so paid an additional charge of 5 percent of the amount of unpaid balance will be made.

DELIVERY VOLTAGE.

The rate set forth in this tariff is based upon the delivery and measurement of energy at standard distribution voltages established by the company of not less than a nominal voltage of approximately 2,400 volts nor more than a nominal voltage of approximately 34,500 volts. For the delivery and measurement of energy at any voltage less than the voltage of established distribution lines operating within these limits an additional charge will be made of $ .25 per month per kva of monthly billing demand.

EQUIPMENT SUPPLIED BY CUSTOMER.

When the customer owns, operates and maintains the complete substation equipment, including all transformers, switches, and other apparatus necessary for receiving and purchasing electric energy at the primary voltage of transmission lines operated at approximately 46,000 or 69,000 volts and when the customer owns all equipment beyond the delivery point of service, bills hereunder shall be subject to a credit of $ .39 per kva of monthly billing demand.

TARIFF Q. P.
(Quantity Power)

RATE.

Service Charge	$335.00	per month
Demand Charge	$ 5.4615	per kw
Energy Charge	1.751¢	per kwhr
Reactive Demand Charge: For each kilovar of lagging reactive demand in excess of 50 percent of the kw of monthly billing demand	$ .41	per kvar

EQUIPMENT SUPPLIED BY CUSTOMER.

When the customer owns, operates, and maintains the complete substation equipment, including all transformers, switches and other apparatus necessary for receiving and purchasing electric energy at the voltage of transmission lines operated at voltages in excess of approximately 34,500 volts and when the customer owns all equipment beyond the delivery point of service, bills hereunder shall be subject to a credit of $ .41 per kw of monthly billing demand.

DELAYED PAYMENT CHARGE.

This tariff is net if account is paid in full within 15 days of date of bill. On all accounts not so paid, an additional charge of 5 percent of the unpaid balance will be made.

TARIFF I. P.
(Industrial Power)

RATE.

Service Charge	$2,612.00	per month
Demand Charge	$5.0111	per kva
Energy Charge	1.723¢	per kwhr

DELIVERY VOLTAGE.

If the customer takes delivery of voltages in excess of 69,000 volts, the demand charges as set forth above shall be reduced by $ .42 per kva.

DELAYED PAYMENT CHARGE.

Bills computed under this tariff are due and payable within 15 days of date of bill. On all accounts not so paid, an additional charge of 5 percent of the unpaid balance will be made.

TARIFF M. W.
(Municipal Waterworks)

RATE.

Service Charge	$18.05	per month
Energy Charge		
First 10,000 kwhrs used per month	3.779¢	per kwhr
All Over 10,000 kwhrs used per month	3.279¢	per kwhr

MINIMUM CHARGE.

This tariff is subject to a minimum monthly charge equal to the sum of the service charge plus $2.20 per kva as determined from customer's total connected load. The minimum monthly charge shall be subject to adjustments as determined under the Fuel Adjustment Clause.