

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

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In the Matter of:

ADJUSTMENT OF RATES FOR WHOLESALE)
ELECTRIC POWER TO MEMBER CO-)
OPERATIVES OF EAST KENTUCKY POWER) CASE NO. 8648
COOPERATIVE, INC.)

O R D E R

TABLE OF CONTENTS

	<u>PAGE</u>
Commentary	2
Test Period	3
Valuation	3
Net Investment	3
Coal Inventory	4
Capital Structure	6
Revenues and Expenses	6
Sales Growth	7
Surplus and Economy Sales	8
Turbine Overhaul Expense	9
Spurlock Scrubber	10
Wages and Salaries	12
Fuel Cost	13
Energy Management Cost	15
Transmission Maintenance Expense	16
Non-Recurring Expenditures	17
Interest Expense	20
Revenue Requirements	22
Other Issues	24
Cost of Service	24
Rate Design	24
Industrial Rates	25
Load Research	25
Cogeneration	26
Finance Concerns	27
Consumer Needs	28
Load Forecasting	29
Summary	31

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On October 12, 1982, East Kentucky Power Cooperative, Inc., ("East Kentucky") filed an application with this Commission requesting authority to increase its rates for service rendered on and after November 1, 1982. The proposed rates would increase annual revenues by \$31,176,207, an increase of 14.7 percent to the ultimate consumers of East Kentucky's 18 member distribution cooperatives. East Kentucky stated that the proposed rate adjustment was required by the construction of the Spurlock Station environmental facilities, the decline in sales to other utilities, and the costs of additional facilities needed for improved service and more efficient operations.

On October 15, 1982, the Commission suspended the proposed rate increase until April 1, 1983, in order to conduct public hearings and investigation into the reasonableness of the proposed rates. A hearing was scheduled for February 9, 1983, for the purpose of cross-examination of witnesses for East Kentucky and for the intervenors. East Kentucky 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 in this matter were filed by the Consumer Protection Division in the Office of the Attorney General ("AG"), Flint Ink Corporation ("Flint Ink"), Owens-Illinois, Inc., ("O-I"), the Lexington-Fayette Urban County Government, and several industrial customers ("Industrial Intervenors") of East Kentucky's member cooperatives. These motions were granted, and no other parties formally intervened.

The hearings for the purpose of cross-examination of witnesses were held in the Commission's offices in Frankfort, Kentucky, on February 9, 10, and 14, 1983, with all parties of record represented. Briefs were filed by March 7, 1983, and the information requested during the hearings has been submitted.

This Order addresses the Commission's findings and determinations on issues presented and disclosed in the hearings and investigation of East Kentucky's revenue requirements and rate design and provides rates that will produce an increase in annual revenues of \$18,849,182.

COMMENTARY

East Kentucky is a cooperative corporation engaged in the generation and transmission of electric energy to the member distribution cooperatives which jointly own East Kentucky. These member cooperatives serve approximately 270,000 customers in over 90 central and eastern Kentucky

counties. Although the increase in rates requested by East Kentucky would be borne directly by the 18 member cooperatives, the impact of any increase by East Kentucky will ultimately be felt by the customers of the distribution cooperatives. The 18 distribution cooperatives have filed applications with the Commission requesting authority to flow through any increase granted East Kentucky in this matter. Appendix B contains a listing of the member distribution cooperatives and the impact of the revenue increase granted herein on their annual purchased power costs.

TEST PERIOD

East Kentucky proposed and the Commission has accepted the 12-month period ending June 30, 1982, 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

East Kentucky presented the net investment rate base and 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.

Net Investment

East Kentucky proposed a net investment rate base of \$792,934,145 which reflects adjustments to the year-end levels of plant in service and construction work in progress and

increases in the allowance for working capital and the depreciation reserve.¹

The Commission will accept the proposed rate base with the following modifications:

The Commission has adjusted the allowance for working capital to reflect the accepted pro forma adjustments to East Kentucky's operation and maintenance expenses.

East Kentucky proposed an adjustment of \$4,391,389 to the depreciation reserve to reflect the proposed adjustment to depreciation expense. The Commission has increased this adjustment by \$108,358 to reflect the depreciation expense adjustment allowed herein.

Coal Inventory

At the end of the test year, East Kentucky's balance sheet reflected a coal inventory valued at \$24,188,380, which consisted of 589,149 tons or a 110-day supply. This is substantially in excess of East Kentucky's stated inventory goal which is a 60-day stockpile for its peak winter sales period, which can be reduced to a 30- to 45-day supply during the spring, summer, and fall months.² East Kentucky indicated that the inventory goal was adjusted from time to time to compensate for problems caused by labor strikes, coal shortages, and adverse weather.

Mr. Joseph Christian, East Kentucky's Production Division Director, testified that the primary reason the inventory had reached its current levels was lower than anticipated sales. Mr. Christian further stated that,

"...there's no reason for us to buy additional coal and add to our inventory. Our intent now is to reduce our inventory and to reduce our inventory costs."³

The Commission is concerned that East Kentucky allowed its inventory to reach its current level. The Commission is encouraged, however, that East Kentucky is cognizant of the need to reduce its inventory and is taking steps to do so, such as not renewing some of its smaller contracts and attempting to renegotiate its larger contracts. The Commission is of the opinion that East Kentucky is attempting to manage its coal inventory in a cost-effective manner and should begin to see the results of this action within the coming year. Considering the cost to finance coal inventory, it is imperative that East Kentucky be sensitive to inventory control. East Kentucky is beginning to demonstrate this sensitivity which the Commission hopes and expects will continue into the future.

In this proceeding, for rate-making purposes, the Commission will accept a coal inventory of 480,600 tons, which is an inventory of 90 days at a burn rate of 5,340 tons per day, the average daily burn for the test year. Priced at the year-end weighted average of \$39.073 per ton, this allowed inventory reduces the rate base by \$4,241,335. The 90-day inventory allowed herein is only an interim figure. In its next general rate case, the burden will rest on East Kentucky to show why customers should finance a coal inventory in excess of a 60-day supply.

Based on these adjustments, the Commission finds East Kentucky's net investment rate base to be as follows:

Utility Plant in Service	\$701,233,651
Construction Work in Progress	139,414,213
Fuel Stock	19,947,045
Materials and Supplies	11,795,244
Prepayments	335,109
Working Capital	12,005,881
Subtotal	\$884,731,143
Less:	
Accumulated Depreciation	\$ 95,484,399
Non-Utility Property	<u>414,862</u>
Subtotal	\$ 95,899,261
Net Investment	<u>\$788,831,882</u>

Capital Structure

East Kentucky proposed a year-end capital structure of \$803,351,598 which consisted of \$14,075,964 of equity and \$789,275,634 of long-term debt.⁴ In accordance with the determination in the previous section regarding the value of coal inventory, the Commission has reduced the capital structure by \$4,656,197 to reflect the lower level of inventory. Moreover, the Commission has reduced the capital structure by \$414,862 to exclude the cost of non-utility property for rate-making purposes. Therefore, the adjusted capital structure found reasonable for rate-making purposes is valued at \$798,695,401 and consists of \$13,994,879 in equity and \$784,700,522 in long-term debt.

REVENUES AND EXPENSES

For the test period East Kentucky had net operating income of \$42,361,289. East Kentucky proposed several pro forma adjustments to revenues and expenses to reflect more

current and anticipated operating conditions. The Commission is of the opinion that the proposed adjustments are generally proper and acceptable for rate-making purposes with the following modifications:

Sales Growth

In Case No. 8400, Adjustment of Rates for Wholesale Electric Power to Member Cooperatives of East Kentucky Power Cooperative, Inc., the Commission recognized the appropriateness of an adjustment to sales based on increases in the number of customers during the test year. The Commission advised East Kentucky to propose such an adjustment in future rate cases or explain why an adjustment should not be made.⁵

In this proceeding, East Kentucky did not propose an adjustment to reflect growth in sales. Mr. James Adkins, Economic Analyst for East Kentucky, explained that such an adjustment was inappropriate based on an analysis of East Kentucky's sales over the past 3 years which reflects approximately zero sales growth.

Mr. Hugh Larkin, Jr., principal in the firm of Larkin and Associates, CPAs, and witness for the AG, proposed an adjustment to revenues and expenses based on growth projections for the 12 months ended June 30, 1983. Mr. Larkin also calculated an adjustment based on customer growth in the test year. The Commission finds an adjustment based on projected sales to be speculative, particularly considering recent trends of reduced growth in the electric utility industry, and therefore improper for rate-making purposes.⁶

The objective of a sales growth adjustment is to reflect a reasonable level of sales on which to base rates. Typically, customer growth, particularly in the residential class, results in additional sales. However, in the case of East Kentucky this has not occurred. In fact, while the number of customers served has increased over the past 3 years, East Kentucky's sales to member cooperatives have declined with 1982 sales levels less than the sales for each of the 2 previous years.

In light of these circumstances, the Commission is of the opinion that an adjustment for sales growth would be inappropriate at this time. This decision does not change the Commission's position stated in the prior case; it merely recognizes that a sales growth adjustment should not be made in the instant case.

Surplus and Economy Power Sales

During the test year East Kentucky had revenue from surplus and economy power sales of \$10,344,666 based on sales of 408,618 MWH.⁷ East Kentucky proposed an adjustment to reduce these sales by 291,618 MWH and reduce revenue by \$7,419,666. East Kentucky also proposed to reduce production expenses by \$5,532,848 to reflect the reduction in sales. These adjustments reflected no future sales to the Tennessee Valley Authority ("TVA") or South Mississippi Electric Power Association ("SMEPA"). East Kentucky indicated that its test year sales to SMEPA were of a non-recurring nature and that any future sales to TVA would be minimal due to the commercialization of TVA's Sequoyah II generating unit in June 1982.

The Commission is of the opinion that the adjustment East Kentucky has proposed is inappropriate for short-term sales such as these. Surplus and economy sales are made on an intermittent basis when the need and/or opportunity arises. East Kentucky has continued its sales to TVA, and although it has not made additional sales to SMEPA, the potential for future sales to other utilities continues to exist. The Commission finds this adjustment, based on expectations of reduced sales to two utilities, to be extremely speculative in light of East Kentucky's interconnections.

The Commission is generally opposed to adjustments to economy and surplus power sales unless the evidence supports a significant change in the magnitude of these sales. Such evidence was not offered in this case. Therefore, the Commission rejects the adjustment to surplus and economy power sales proposed by East Kentucky.

Turbine Overhaul Expense

During the test year East Kentucky incurred \$572,504 in expense for materials and contract labor costs ("incremental costs") for turbine overhauls of its generating units. Based on the expected 5-year maintenance cycle for total overhauls of its generating units, East Kentucky calculated its average annual incremental costs to be \$976,867 with a resultant adjustment of \$404,363.

East Kentucky performed partial rather than total overhauls on Dale Units 1 and 2 during the test year and Mr. Christian agreed that Dale Unit 4 could probably be maintained

with only a partial overhaul.⁸ Mr. Christian also indicated that in the future East Kentucky could utilize its own work force for the majority of its overhauls and rely less on contract labor.⁹ East Kentucky's proposed adjustment did not reflect the effect of either the partial overhauls or the use of its own work force rather than contract labor. Finally, East Kentucky's recent experience with the Dale units indicates that turbine overhauls are not necessarily required to be performed every 5 years. For these reasons, the Commission is of the opinion that East Kentucky has not adequately supported its proposed adjustment and, therefore, has allowed no increase for turbine overhaul expense herein for rate-making purposes.

Spurlock Scrubber Operations

East Kentucky proposed adjustments totalling \$5,615,240 for the estimated operation and maintenance costs of the Spurlock No. 2 scrubber system which is to go into commercial operation on April 1, 1983. East Kentucky subsequently reduced these adjustments by \$442,226 to eliminate the double counting of salaries, benefits and payroll taxes for 9 employees and rental fees for sludge hauling equipment.¹⁰

In response to a request by the AG, East Kentucky submitted a comparison of the cost to operate the scrubber burning compliance coal, non-compliance coal and a blend of compliance and non-compliance coal. As addressed elsewhere in this Order, East Kentucky has a surplus of compliance coal on hand at the Spurlock site. The Commission is of the opinion that East Kentucky should make every attempt to utilize its

coal inventory in the most efficient and cost-effective manner possible and at this time that would mean burning some compliance coal at Spurlock No. 2. Mr. Christian indicated this would be done and that East Kentucky would be reducing its inventory over the next year. Burning a blend of compliance and non-compliance coal would reduce the cost to operate the scrubber to \$3,711,430.¹¹ This reduction would be achieved primarily through reduced expenses for lime, sludge and ash handling, and maintenance materials. The Commission is of the opinion that it would be imprudent of East Kentucky to fail to burn a blend of compliance and non-compliance coal at Spurlock No. 2 given the amount of compliance coal it has in inventory and the potential to reduce costs. Therefore, the Commission has reduced East Kentucky's revised adjustment by \$1,461,584 to \$3,711,430, for the operation of the Spurlock No. 2 scrubber system.

Spurlock Scrubber Fixed Costs

In its original filing East Kentucky reflected fixed costs--interest, depreciation, taxes and insurance--of \$14,718,175 for the Spurlock No. 2 scrubber system. During the course of these proceedings, this amount was reduced to \$10,188,659, primarily as the result of East Kentucky's successful refinancing of its pollution control bonds with tax-exempt commercial paper. The reduction in interest is reflected in the Commission's interest adjustment as discussed in the section on interest expense herein.

East Kentucky reflected increases to depreciation and taxes of \$108,358 and \$3,425, respectively, based on more information available at the time of the hearing. These adjustments reflect an increase in the installed cost of the scrubber over the projection at the time the application was filed. The Commission is of the opinion that these costs are known and measurable and are necessary for providing service. Therefore, adjustments for these amounts have been included in East Kentucky's adjusted operating expenses found reasonable for rate-making purposes.

Wages and Salaries

East Kentucky proposed adjustments totalling \$856,836 to normalize wages and salaries and reflect wage increases scheduled to occur after the test year and throughout calendar year 1983. East Kentucky's President and General Manager, Mr. Donald Norris, testified that a wage freeze had been instituted at the end of December 1982.¹² The freeze reduces the amount of the wage adjustment by \$274,059 to \$582,777. The Commission is of the opinion that the reduced adjustment is reasonable and it has been included herein as an appropriate adjustment for rate-making purposes. By implementing this freeze East Kentucky has exercised restraint in an area of cost over which management has control; however, the Commission questions the actual impact of this action as it did not affect the operation skills employee group which received a 6 percent wage increase in October, 1982. In today's economy, the Commission would

hope to see even greater restraint in cost areas such as this which are within management's control.

While the Commission is concerned about East Kentucky's labor costs, there is not enough evidence to accept the Industrial Intervenors' argument that East Kentucky's salary levels are excessive compared with non-utility salaries within East Kentucky's service area. However, in light of East Kentucky's low turnover and loss of employees to other utilities, the Commission is of the opinion that compensation studies performed by East Kentucky should take into account the area it serves and the comparability of its salaries with other salaries within the area and that such issues should be investigated prior to any further wage increases.

Fuel Cost

Mr. Larkin proposed an adjustment of \$1,136,016 to decrease test year expenses to "zero out the fuel adjustment clause."¹³ Mr. Larkin asserted that the proper place to consider recoverable fuel costs and the associated revenues is in the Fuel Adjustment Clause ("FAC") hearings rather than in this proceeding. In his prepared testimony Mr. Larkin stated,

Since the fuel clause is, in effect, a separate and distinct rate with separate hearings establishing the appropriate level to be recovered, to avoid double counting all the recoverable fuel costs and revenues should be removed from consideration in this case. The only costs which should affect base rates are those which are not recoverable through the fuel clause.¹⁴

Mr. Larkin matched the fuel costs which were recoverable through the FAC with the associated revenues in the test period to accomplish this "zeroing out of the FAC" in lieu of suggesting that fuel revenues be shifted back 1 month to increase East Kentucky's test year revenue, as he did in Case No. 8400. Mr. Larkin contended that the resulting over- or under-recovery must be adjusted out of test period expenses to prevent the utility from recovering the same fuel costs from the ratepayers twice, "once through the base rates and again through fuel adjustments clause rates."¹⁵

East Kentucky questioned Mr. Larkin's understanding of the FAC and the related hearings, but it did not contest the merit or mechanics of his adjustment. Further, East Kentucky pointed out that the Commission has not allowed adjustments of this type in past cases. Mr. Larkin's understanding of East Kentucky's FAC is questionable, since there is currently no mechanism to allow recovery of under-recovered fuel costs for the generation and transmission companies, and since the forced outage provision in the FAC regulation prevents East Kentucky's fuel clause from being truly classified as a fully recovering type clause.

Certainly, the Commission does not wish to give East Kentucky, or any other electric utility, the opportunity to recover the same fuel costs twice. Likewise, the Commission does not wish to unjustly penalize East Kentucky, or any other electric utility. Therefore, the Commission is of the opinion that it should perform an in-depth investigation of this matter

to determine an appropriate adjustment for each of the electric utility companies. Furthermore, the Commission will not accept Mr. Larkin's adjustment until such time that it has closely scrutinized his adjustment and found it to be appropriate. The Commission hereby gives notice that this issue will be investigated in future rate proceedings for each of the electric generation and transmission companies under its jurisdiction.

Energy Management Costs

East Kentucky proposed an adjustment of \$400,000 to cover the costs of its energy management program. Mr. Larkin recommended that the Commission reject the adjustment because the program should be instituted and its costs incurred at the distribution level by the member cooperatives.

During the course of these proceedings East Kentucky reduced its proposed adjustment by \$136,707 to \$263,393. The Commission is of the opinion that the program and revised costs are reasonable with the exception of the proposed residential time of day ("TOD") rate experiment. The proposed experiment would include 144 residential consumers, with 8 from each member cooperative. East Kentucky proposed to use the results of the study to determine if TOD rate experimentation should be expanded to specific classes of users.

The Commission is of the opinion that a prerequisite for a study of this magnitude is a detailed research plan which addresses such areas as the objectives of the experiment, required load research, selection of sample participants,

required cost studies, rate design and method of evaluating results of the experiment. East Kentucky has not prepared such a research plan for the TOD experiment, and therefore, the Commission will not allow the pro forma expenditures of \$33,792 for TOD meters. While the proposed experiment is premature at this time, the Commission encourages East Kentucky to prepare a TOD research plan for future consideration.

Transmission Maintenance Expense

During the test year, East Kentucky incurred \$322,346 in expense for its pole treatment program. This was based on inspection and/or treatment of 13,852 poles which is more than 2 1/2 times the 5,000 poles East Kentucky intends to treat annually. Mr. Larkin proposed an adjustment to reduce this expense by \$205,993 to \$116,353 which reflects the expense of treating 5,000 poles per year at the test year unit cost of \$23.27 per pole. It is the intent of this Commission to set rates based on a normal and reasonable level of expense. Thus, the Commission has accepted Mr. Larkin's adjustment for rate-making purposes.

Mr. David Hopper, East Kentucky's Transmission Division Director, indicated under cross-examination that although no adjustment was proposed, the level of expense incurred during the test year for right-of-way maintenance of \$331,995 was somewhat less than normal. This is not supported by East Kentucky's recent experience. While East Kentucky has projected as much as \$650,000 as the annual expense for right-of-way clearing in past rate cases, it has not incurred the

projected level of expense during the test years in any of its last four rate cases. In fact, the test year expense was above the average for the 4 test years and approximately twice as great as the expense incurred during the 12 months immediately preceding the test year. Therefore, the Commission is of the opinion that an adjustment for right-of-way maintenance expense would be inappropriate.

Non-Recurring Expenditures

Ash Pond Cleaning

East Kentucky incurred during the test year \$257,987 in contract labor expense for ash pond cleaning at the Dale Station. The most recent time such an expense was incurred for Dale Station was in 1978 at a cost of \$32,000. Mr. Christian testified that the average annual cost for ash pond cleaning for all generating stations from 1972 to 1980 was \$80,781.¹⁶ Clearly, the test year cost was an extraordinary expense that will not be incurred on an annual basis. Mr. Larkin proposed to eliminate the entire test year expense for rate-making purposes as a non-recurring item. The Commission is of the opinion that this adjustment would be improper as it would not allow East Kentucky to recover any cost for ash pond cleaning although such cost is incurred from time to time. The Commission has made an adjustment of \$177,206 to reduce the test year expense to the annual average expense of \$80,781.

Furnace Explosion

Mr. Larkin proposed to reduce East Kentucky's operating expenses by \$113,513 to eliminate the cost of repairs made as

the result of a furnace explosion at the Dale Station. The Commission is of the opinion that this was an extraordinary, non-recurring item; however, in determining the amount of the adjustment East Kentucky's own labor cost should not be included. There is no evidence in the record which reflects that East Kentucky's labor cost was higher due to this extraordinary repair. Therefore, the Commission has reduced the adjustment by \$4,671 to \$108,842. This eliminates both the costs of materials and the charges for contract labor incurred for the furnace repairs.

Locomotive Derailment

During the test year East Kentucky incurred \$31,246 in operating expenses for contract labor charges for the repair of the railroad tracks at Spurlock Station necessitated by a switch failure and locomotive derailment. Mr. Larkin proposed that this item be eliminated for rate-making purposes as it is not a normal or recurring expense. Mr. Christian testified that this was the first time such a derailment had occurred and that he would not expect this to be a recurring event.¹⁷ The Commission is of the opinion that the expense is extraordinary and non-recurring and has accepted Mr. Larkin's adjustment to eliminate this item for rate-making purposes.

Accounting Adjustment

In December 1981, East Kentucky made a year-end adjustment to transfer \$237,050 from Account No. 183, Preliminary Survey and Investigation Charges, to Account No. 560, Operations Supervision and Engineering. Including the

effect of this adjustment, Account No. 560 reflected test year expense of \$748,875. Mr. Larkin questioned the propriety of the year-end adjustment and proposed to annualize the cost based on the level of expense incurred in the 6 months from January 1982 through the end of the test year.

In response to a request made at the hearing, East Kentucky filed an analysis of the 1981 year-end adjustment. This analysis revealed that only \$34,119 of the amount included in the adjustment was actually incurred during the test year while \$202,931 of the year-end adjustment was incurred prior to the beginning of the test year.¹⁸ The Commission is of the opinion that this out-of-period cost results in an overstatement of the annual level of expenses in Account No. 560 and should not be included in operating expenses for rate-making purposes and, accordingly, has made an adjustment to reduce expenses by \$202,931.

Dale Station Precipitator Maintenance

During the test year, East Kentucky incurred operating expenses of \$172,058 for maintenance of the Dale Station precipitators for which East Kentucky has since been compensated by the manufacturer. \$80,098 of the test year expense was for labor and employee expenses which can be expected to recur, while \$91,960 of the expense covered materials, engineering, and inspection and test expenses.¹⁹ East Kentucky indicated that the materials expense was "....probably a recurring expense because some type of maintenance will be performed on these precipitators."²⁰

While it is likely that some maintenance may be performed in the future, the cost of that maintenance is unknown. Moreover, the Commission is of the opinion that this particular item of expense is extraordinary and nonrecurring and should not be included for rate-making purposes. Therefore, the Commission has made an adjustment to reduce operating expenses by \$91,960 to eliminate the non-labor expenses, including materials, of this maintenance project for rate-making purposes.

Interest on Long-Term Debt

In its original filing, East Kentucky did not propose to adjust interest expense but did propose to decrease Interest Charged to Construction ("ICC") by \$12,890,383 to reflect completion of the Spurlock No. 2 scrubber, the energy control center, and various transmission facilities. Mr. Manley Combs, East Kentucky's Director of Finance and Assistant General Manager, explained that any adjustments to increase interest expense would have been offset by increases to ICC and that therefore, no adjustments were made.²¹ Mr. Adkins later filed supplemental testimony which presented East Kentucky's debt balances, interest rates and interest costs at December 31, 1982. These data reflected the refinancing of various Federal Financing Bank ("FFB") notes and the Spurlock Pollution Control Bonds as well as refinancings scheduled to occur before this Order is issued. Mr. Larkin proposed adjustments to reflect not only these refinancings, but also refinancings scheduled to occur through October 1983. The Commission is of the opinion that interest rate changes subsequent to the date of this Order

are not known and measurable and should not be considered for rate-making purposes.

Based on the debt balances and interest costs as of December 31, 1982, and reflecting the refinancings that occurred from January through March of 1983, the Commission has determined East Kentucky's composite debt cost to be 9.13 percent. Application of this rate to the balance of long-term debt included in the capital structure allowed herein results in gross interest on long-term debt of \$71,643,158. This results in an adjustment to increase gross interest by \$1,449,159. The Commission has also decreased ICC by \$5,298,940 to reflect the December 31, 1982, cost rates applied to the test year-end balances of debt on projects presently under construction. These adjustments result in increasing long-term interest charged to operations by \$6,748,099 to \$51,673,592.

After consideration of the pro forma adjustments accepted herein, East Kentucky's statement of operations is as follows:

	<u>Actual Test Year</u>	<u>Pro forma Adjustments</u>	<u>Adjusted Test Year</u>
Operating Revenues	\$150,306,371	\$14,118,018	\$164,424,389
Operating Expenses	<u>107,945,082</u>	<u>12,989,865</u>	<u>120,934,947</u>
Operating Income	\$ 42,361,289	\$ 1,128,153	\$ 43,489,442
Other Income and (Deductions) - Net	81,442	-0-	81,442
Interest on Long-Term Debt - Net	<u>44,925,493</u>	<u>6,748,099</u>	<u>51,673,592</u>
Net Income	<u>\$ (2,482,762)</u>	<u>\$ (5,619,946)</u>	<u>\$ (8,102,708)</u>

REVENUE REQUIREMENTS

The actual rate of return on East Kentucky's net investment rate base for the test year was 5.37 percent. Considering the pro forma adjustments allowed herein, East Kentucky's rate of return was 5.51 percent. In calculating its revenue requirements, East Kentucky placed the greatest emphasis on the requested times interest earned ratio ("TIER") and placed little emphasis on rate of return. TIER is a measure of a utility's ability to cover the annual interest expense on its long-term debt and is the primary earnings requirement contained in East Kentucky's mortgages. East Kentucky's TIER during the test year was .96. East Kentucky's TIER has exceeded 1.0 in 2 of the last 3 calendar years and has averaged 1.06 for that period.

In this proceeding East Kentucky requested additional revenue sufficient to produce a TIER of 1.15. Mr. Larkin recommended a TIER of 1.11 which excluded interest on long-term construction from the determination of revenue requirements and reflected only net interest charged to expense. In support of his recommendation Mr. Larkin stated, "I do not believe that it is sound regulatory practice for a Commission to allow a utility to earn a return on Construction Work in Progress."²² The Commission does not, as a matter of policy, exclude CWIP from rate base and it is not persuaded by Mr. Larkin's testimony on this matter. In the case of East Kentucky, the Commission has historically allowed CWIP in rate base to the extent that the TIER calculation affects revenue requirements.

In this instance the Commission has continued this practice and has not reduced TIER as Mr. Larkin recommended.

Under the terms of East Kentucky's mortgage agreements the TIER calculation is based on gross interest, including ICC. Considering East Kentucky's current equity position, the Commission finds little, if any, benefit to be achieved through reduced margins, as such action would cause East Kentucky to incur additional cost through greater reliance on short-term borrowings. This would result in further reducing TIER while hindering East Kentucky's ability to finance non-plant expenditures with internally generated funds. Therefore, the Commission is of the opinion that a TIER of 1.15 based on gross interest is reasonable and should be approved.

Based on the adjusted gross interest expense of \$71,643,158 allowed herein, a TIER of 1.15 would result in net income of \$10,746,474. East Kentucky's revenue should be increased by \$18,849,182 to produce this level of net income. This additional revenue will be sufficient to meet East Kentucky's operating needs and the requirements of the mortgages securing East Kentucky's long-term debt. The increase in revenue granted herein will result in a rate of return on the net investment rate base of 7.9 percent.

OTHER ISSUES

Cost of Service

East Kentucky filed a non-time differentiated embedded wholesale cost of service study in this proceeding through its

witness, Mr. Robert Luiken of Stanley Consultants, Inc. None of the intervenors submitted cost of service studies.

East Kentucky's cost of service study has been accepted as filed. However, the Commission is of the opinion that the guiding principle for allocating costs in a cost of service study should be cost causation. The customers responsible for capital investment decisions by a utility should bear the cost of that investment. The Commission is aware that East Kentucky is limited in its choice of cost of service methodology due to its lack of load research information; however, the Commission is of the opinion that costs vary according to the time of service, and, therefore, that a time differentiated cost of service study is needed to reflect cost causation. In future rate cases the Commission will require East Kentucky to file a time differentiated cost of service study.

Rate Design

East Kentucky proposed to allocate the requested increase in revenue to the substation and demand charges, which is consistent with the results of its cost of service study. O-I supported the proposed rate design and requested that the Commission require East Kentucky to complete its study of demand periods as expeditiously as possible and take further steps toward implementing cost-based rates during 1983. The Commission agrees with the proposed rate design and accepts the methodology proposed by East Kentucky.

Innovative Industrial Rates

Flint Ink filed a motion requesting that the Commission order East Kentucky to file industrial TOD rates and seasonal rates not later than June 1, 1983. East Kentucky opposed the motion on the ground that "...adequate evaluations of Applicant's system load characteristics have not been made...".²³

The Commission is of the opinion that East Kentucky does not have adequate load research to permit it to prepare a cost-based TOD rate. Therefore, it will deny Flint Ink's TOD motion. The Commission is of the opinion, however, that seasonal rates are appropriate and consistent with East Kentucky's goal of improving system load factor. The Commission will require East Kentucky to file a plan for implementing seasonal rates in its next rate case. Furthermore, since East Kentucky has proposed and the Commission has agreed to the implementation of a load research program in this proceeding, the Commission will give consideration to the implementation of an experimental industrial TOD rate in East Kentucky's next rate case.

Load Research Project

As a part of its energy management program East Kentucky proposed to initiate and implement a load research project which would entail gathering and analyzing load data from 270 research meters allocated on an equal basis to the 18 member cooperatives. East Kentucky would use the results of the

project "to improve monthly and annual load factors and to minimize needs for future costly construction."²⁴

The Commission is of the opinion that East Kentucky should proceed with a load research program. The information to be derived from such a program is essential for East Kentucky to develop alternatives to power plant construction. Furthermore, if East Kentucky assumes the responsibility for developing the load research program, needless duplication of personnel and equipment by the member cooperatives can be averted. The Commission will require that East Kentucky provide a detailed research plan for approval prior to final implementation of the load research program.

Cogeneration

The Industrial Intervenors proposed that the Commission adopt a rate for East Kentucky's purchase of electric power generated by small power producers and cogenerators. East Kentucky opposed the adoption of such a purchase rate on the ground that this issue was currently being considered by the Commission in Case No. 8566, Setting Rates and Terms and Conditions of Purchase of Electric Power for Small Power Producers and Cogenerators by Regulated Electric Utilities.

The Commission is of the opinion that the issues involved in setting initial purchase rates for small power producers and cogenerators are sufficiently complex that consideration of purchase rates should be confined to Case No. 8566.

Financing Concerns

During the course of this proceeding, East Kentucky refinanced several FFB notes and converted its Spurlock Pollution Control Bonds to tax exempt commercial paper. These actions have resulted in reducing interest expense by approximately \$6 million. In its brief, East Kentucky reiterated Mr. Combs' plea that the Commission consider the uncertain nature of interest rates and the fact that a large portion of its debt is subject to short-term interest rate fluctuations.²⁵ Mr. Combs is correct, and the Commission has given these matters careful consideration; however, there are positive as well as negative aspects to be considered. While it is likely that the rate of interest on East Kentucky's commercial paper will fluctuate with general interest rate trends, it is just as likely that East Kentucky will achieve long-term interest savings through the roll-over of a substantial number of 2-year FFB notes in the coming months. The Commission is of the opinion that East Kentucky may benefit rather than realize adverse effects from changing interest rates if management continues to perform effectively in this area.

The Commission is pleased that East Kentucky is taking advantage of these opportunities to reduce costs; however, the Commission is also puzzled that, as a non-profit cooperative, East Kentucky is hesitant to pass these savings on to its customers. This would appear to defeat the purpose of achieving the cost savings.

As a cooperative, East Kentucky's only obligation is to the consumers of its 18 member cooperatives. In the cooperative structure there are no stockholders; the customer is the owner. For this reason, East Kentucky must be doubly sensitive to the needs of its customers--as owners and as ratepayers. The Commission is of the opinion that passing East Kentucky's interest savings on to its customers is an appropriate means of addressing those needs.

Future Needs of Consumers

The issuance of this Order marks the sixth rate increase for East Kentucky during the past 5 years. East Kentucky's rate increases have not only been more frequent than the increases of any other major electric utilities within this jurisdiction, but they have also resulted in greater increases in rates for East Kentucky's ultimate retail consumers than for retail consumers served by the state's other major electric utilities. In most instances, the residential consumers of East Kentucky's 18 distribution cooperatives are charged higher rates than the residential consumers of other electric utilities under this Commission's jurisdiction. This is due to the relative lack of major industrial customers on the East Kentucky system as well as to the additions of costly generating capacity by East Kentucky in recent years.

East Kentucky's sales have declined in each of the last 2 calendar years. In and of itself this decline causes concern. Moreover, if the reason for this decline is that East Kentucky is pricing itself out of the market for its product,

there is additional reason for concern. The Commission is confident the management of East Kentucky shares this concern and hopes that management will take steps to address it.

East Kentucky recently deferred the in-service date for J. K. Smith Unit No. 1 from 1987 to 1992. The absence of any other major construction projects during the next 9 years should have the effect of reducing the magnitude and frequency of requests for rate relief during this period. The need for future rate relief will be a direct result of increased operating costs, an area over which management should be able to exert strict control. The degree to which management exercises this control will be closely monitored by the Commission.

In future rate proceedings before this Commission East Kentucky's operations will be scrutinized very closely as will the operations of all utilities regulated by the Commission. It is imperative that East Kentucky's consumers be allowed some measure of relief from the frequency and magnitude of rate increases they have seen in recent years. This relief can only be achieved through the efforts of East Kentucky's management and the efforts of this Commission.

LOAD FORECASTING

In Case No. 8666, State Wide Planning for the Efficient Provision of Electric Generation and Transmission Facilities, the Commission expressed its concern with load forecasts and capacity expansion activities in Kentucky. Higher interest rates, escalating construction costs, and environmental

uncertainties have continued to increase the cost of expanding generation capacity at the same time that depressed economic activity and increased conservation have added to the uncertainties surrounding the load forecasts. These events contribute to forecasting errors which result in costly modifications of construction projects.

East Kentucky's load forecasts were prepared by Stanley Consultants, Inc., as a part of East Kentucky's power supply study. The Commission is of the opinion that East Kentucky has made progress in load forecasting and capacity expansion planning. However, the Commission is still concerned that overly optimistic assumptions built into the customer estimation model and the energy use model will lead to over-estimated load growth. Furthermore, East Kentucky has failed to consider various alternatives to the construction of power plants such as cost-effective conservation programs and the development of small power production and cogeneration. These concerns are at the heart of the Commission's belief that it has an obligation to pursue, for Kentuckians, an energy strategy that represents least cost power with appropriate reliability, and the further belief that the least cost system does not currently exist.

To respond to these concerns and beliefs, the Commission will order an independent consulting firm, to be selected by the Commission, to undertake a thorough review and make a recommendation with regard to the several items of concern set

forth above. The consultant's work will include a review of Stanley Consultants' power supply study.

SUMMARY

The Commission, having considered the evidence of record and being advised, is of the opinion and finds that:

1. The rates in Appendix A are the fair, just and reasonable rates for East Kentucky and will produce gross annual revenue of approximately \$183,273,571.

2. The rates proposed by East Kentucky 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 East Kentucky on and after April 1, 1983.

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

IT IS FURTHER ORDERED that there be a thorough study of East Kentucky's load forecasting, and of such related issues as the benefits to be realized from a cost-effective conservation program, the most prudent course to follow concerning J. K. Smith Unit No. 1, the extent to which it would be beneficial for East Kentucky to purchase power from and/or sell power to neighboring utilities, and the development of small power production and cogeneration, such study to be undertaken by an independent consulting firm to be selected by the Commission and compensated by East Kentucky, with the results of such study, and recommendations, to be

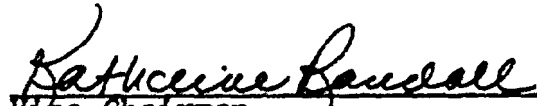
contained in a report to the Commission, with copies made available to East Kentucky and other interested parties.

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

Done at Frankfort, Kentucky, this 1st day of April, 1983.

PUBLIC SERVICE COMMISSION


Chairman


Vice Chairman


Commissioner

ATTEST:

Secretary

FOOTNOTES

1. Notice of Adjustment of Rates, Section I, Schedule E.
2. Response to Commission Information Request No. 2, dated November 29, 1982, Item 12.
3. Transcript of Evidence ("T.E."), Volume I, February 9, 1983, page 177.
4. Notice of Adjustment of Rates, Section I, Schedule F.
5. Order in Case No. 8400, entered June 4, 1982, pages 9-10.
6. Ibid., page 9.
7. Notice of Adjustment of Rates, Section I, Schedule B-2.
8. T.E., Volume I, February 9, 1983, page 261.
9. Ibid., pages 262-263.
10. T.E., Volume III, February 14, 1983, pages 63-64.
11. Response to AG Information Request at Hearing of February 10, 1983.
12. T.E., Volume I, February 9, 1983, page 33.
13. Larkin Testimony, page 15.
14. Ibid., page 14.
15. Ibid., page 15.
16. T.E., Volume III, February 14, 1983, page 123.
17. Ibid., page 122.
18. Response to Information Request at Hearing of February 14, 1983, Item 9.
19. Ibid., Items 5 and 6.

20. Ibid.
21. T.E., Volume III, February 14, 1983, page 45.
22. Larkin Testimony, page 34.
23. East Kentucky's Brief, page 31.
24. Response to Information Request at Hearing of February 9, 1983, "Proposed Load Research Programs at East Kentucky Power Cooperative," page 6.
25. East Kentucky's Brief, pages 8-9.

APPENDIX A

APPENDIX TO AN ORDER OF THE PUBLIC SERVICE COMMISSION IN CASE NO. 8648 DATED April 1, 1983.

The following rates and charges are prescribed for the customers in the area served by East Kentucky Power Cooperative, Inc. 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.

Wholesale Power Rate Schedule

AVAILABILITY

Available to all cooperative associations which are or shall be members of East Kentucky Power Cooperative, Inc. The electric power and energy furnished hereunder shall be separately metered for each point of delivery.

MONTHLY RATE - PER SUBSTATION OR METERING POINT

Substation Charge:

\$1,069 per month for each energized substation. In the event of joint utilization, this charge shall be divided equally.

Demand Charge:

\$7.82 per KW of billing demand.

Energy Charge:

All Kwh \$.02504 per Kwh

MONTHLY RATE - PER SUBSTATION OR METERING POINT (continued)

Minimum Monthly Charge:

The minimum monthly charge under the above rate shall not be less than \$1,069 to each member of each energized substation (metering point).

APPENDIX B

APPENDIX TO AN ORDER OF THE PUBLIC SERVICE COMMISSION IN CASE NO. 8648 DATED April 1, 1983.

The following 18 rural electric distribution cooperatives ("RECCs") are the owners and member-consumers of East Kentucky Power Cooperative, Inc. The RECCs purchase all of their electric requirements from East Kentucky Power and provide service to approximately 1,000,000 citizens in the Commonwealth.

<u>NAME OF RECC</u>	<u>POWER COST INCREASE APPROVED IN THIS ORDER</u>
Big Sandy	\$ 718,544
Blue Grass	857,605
Clark	851,912
Cumberland	1,294,732
Farmers	1,005,758
Fleming-Mason	1,100,706
Fox Creek	426,180
Grayson	563,067
Harrison County	493,448
Inter-County	838,957
Jackson County	1,885,239
Licking Valley	732,828
Nolin	1,208,902
Owen County	1,407,395
Salt River	1,805,415
Shelby	571,682
South Kentucky	2,070,636
Taylor County	1,016,542
Total	\$ 18,849,548