COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

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In the Matter of:

BIG RIVERS ELECTRIC CORPORATION'S NOTICE OF CHANGES IN ITS RATES FOR ELECTRICITY SOLD TO MEMBER COOPERATIVES	CASE NO. 9163

O R D E R

On November 16, 1984, Big Rivers Electric Corporation ("Big Rivers") filed its application with the Commission requesting authority to increase its rates for service rendered on and after December 7, 1984. The proposed rates would increase Big Rivers' annual revenues by $16.7 million, an increase of 7.1 percent over normalized revenues.

The Commission suspended the proposed rate increase until May 7, 1985, in order to conduct public hearings and investigations into the reasonableness of the proposed rates. A hearing was scheduled for March 14, 1985, for the purpose of cross-examination of the witnesses of Big Rivers and the intervenors. Big Rivers was directed to give notice 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 Utility and Rate Intervention Division in the Office of the Attorney General ("AG"), National Southwire Aluminum Company ("NSA"), Alcan Aluminum Corporation and Arco Metals Company ("Alcan"), and two consumer organizations, Kentuckians for Affordable Energy, Inc., ("KAE") and Utility Ratecutters of Kentucky ("URK"). These motions were granted and no other parties formally intervened.

On November 7, 1984, NSA filed a complaint against Big Rivers requesting a rate consisting of a $7.00 demand charge which would not include recovery of any cost associated with Big Rivers' newest generating station, the D. B. Wilson Station ("Wilson"). The Commission later consolidated NSA's complaint with this rate proceeding. Subsequent to the hearing of this matter and the filing of briefs, NSA filed an amended complaint on April 15, 1985, requesting a reduction of rates to produce a rate of 22 mills per KWH.

The hearing in this matter was held in the Commission's offices in Frankfort, Kentucky, on March 14-15, and March 19-20, 1985, with all parties represented. Briefs were filed by April 9, 1985, and responses to all data requests have been filed.

Case No. 9006, Big Rivers Electric Corporation's Notice of Changes in its Rates and Fuel Adjustment Clause Base for Electricity Sold to Member Cooperatives, was incorporated and made a part of the record in this case, except for the prepared testimony.

COMMENTARY

Big Rivers is a non-profit cooperative corporation engaged in the generation, transmission and sale of electricity, through four distribution cooperatives, to approximately 71,000 customers in 22 western Kentucky counties. Big Rivers derives 75 percent of its revenues from two industrial customers, which are the aluminum smelters owned and operated by NSA and Alcan.

This Order addresses the Commission's findings and determinations on issues presented and disclosed in the hearing and investigation of Big Rivers' revenue requirements and rate design. Big Rivers requested additional revenue of approximately $16.7 million and this Order provides for no increase in Big Rivers' revenues. The revenue requested in this case included approximately $6.5 million associated with the transmission facilities which connect Wilson with the rest of Big Rivers' system. The request also included additional revenue requirements resulting from projected decreases in off-system sales. The modification of these requests together with the decision not to increase Big Rivers' Times Interest Earned Ratio ("TIER") are the primary reasons that no increase has been granted in this case.

BACKGROUND

On April 11, 1984, Big Rivers filed a rate application in Case No. 9006 requesting additional revenue of $48 million under a scenario in which Big Rivers would sell Wilson No. 1 and then operate the facilities by means of a leveraged lease; or additional revenue of $57.6 million under a scenario in which Big Rivers would retain ownership of Wilson No. 1. On October 16, 1984, upon its determination that the proposed leveraged lease could not be consummated and recognizing that a significant increase in rates could possibly force NSA and Alcan out of business in its service area, Big Rivers withdrew its application in Case No. 9006 and the Commission dismissed said case without prejudice.

On November 16, 1984, Big Rivers filed its application in this proceeding, which application excluded recovery of any costs associated with the Wilson generating facilities. During the course of these proceedings the Rural Electrification Administration ("REA"), the lien holder on over $1.1 billion of Big Rivers' assets, suspended the advance of loan funds to Big Rivers and Big Rivers, in turn, has ceased debt service payments on all debt guaranteed by REA. REA has initiated foreclosure proceedings against Big Rivers. Big Rivers and East Kentucky Power Cooperative, Inc. ("East Kentucky"), with strong encouragement from REA, have initiated a feasibility study concerning a possible merger.

TEST YEAR

Big Rivers proposed and the Commission has accepted the 12-month period ending December 31, 1983, 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

Big Rivers presented the net original cost and capitalization as valuation methods in this case. The Commission, recognizing that Big Rivers placed primary emphasis on its TIER calculation rather than on rate of return, has given appropriate consideration to these and other elements of value in determining the reasonableness of the proposed rates.

Net Original Cost

Big Rivers proposed a pro forma jurisdictional rate base, excluding the cost of the Wilson generating facilities, in the amount of $540,832,456.[1] This amount included post-test-year adjustments for the addition of the Wilson 345 KV transmission facilities and the transmission facilities acquired from Jackson Purchase Electric Cooperative Corporation ("Jackson Purchase") to allow Big Rivers to serve Jackson Purchase directly.

None of the intervenors actively addressed Big Rivers' rate base as an issue in this case; however, from an expense standpoint, the AG, NSA and Alcan all argued against the inclusion of the costs associated with the Wilson 345 KV transmission facilities on the grounds that existing ratepayers should not pay for any facilities associated with the Wilson plant.

Big Rivers has contended that the costs of the Wilson transmission facilities should be borne by ratepayers because the connection with Wilson No. 1 enhances the system's overall reliability. Big Rivers further argued that the 345 KV system was of benefit to the existing system because it reduces line loss from the Wilson station.

The intervenors contend that reliability was adequate prior to construction of the line and that, absent the construction of the Wilson generating station, the 161 KV line that had been planned to connect the Reid and Coleman stations would have provided sufficient long-term reliability for the existing system.

The record shows that, prior to the planning of the Wilson generating station, Big Rivers intended to improve the reliability of its transmission system by constructing a 161 KV line that

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1 Big Rivers' Application, Exhibit 9, p. 1 of 2.

would connect its Reid and Coleman generating stations. In conjunction with the planning and construction of the Wilson generating station, Big Rivers abandoned its plan to build a Reid-Coleman 161 KV line in favor of a Reid-Wilson-Coleman 345 KV line. It is evident from the testimony of Scott Reed, Big Rivers' Vice-General Manager of Engineering and Construction, that the 345 KV system was constructed at that voltage to accommodate the planned additions of capacity at the Wilson station.[2] The Commission therefore concludes that, were it not for Big Rivers' plan to install up to 2,000 megawatts of generating capacity at the Wilson site, the line would not have been constructed at 345 KV capacity. Furthermore, without Wilson No. 1, for which all costs are being excluded from this case, the line that Big Rivers constructed would have been the Reid-Coleman 161 KV line that was originally planned.

As Big Rivers had stated, avoided line loss is a benefit of the 345 KV line; however, that benefit is not reflected in this rate proceeding. Furthermore, by itself, avoided line loss cannot be considered justification for the additional investment required for the 345 KV transmission facilities. Therefore, the Commission is of the opinion that Big Rivers' rate base should not include the full cost of $46,838,761 for the 345 KV transmission line and its associated facilities, but rather should reflect the cost of $6,902,000 that would have been incurred to construct the Reid-

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2 Transcript of Evidence ("T.E."), March 14, 1985, page 236.

Coleman 161 KV line.[3] The Commission has reduced Big Rivers' pro forma plant in service by $39,936,761 to reflect this adjustment.

Big Rivers also reflected in its rate base the cost of transmission facilities it acquired from Jackson Purchase at net reproduction cost. In Case No. 7787, The Application of Jackson Purchase Electric Cooperative Corporation for Approval of Financing for the Purpose of Purchasing Facilities of Kentucky Utilities Company, the Commmission approved the sale of these transmission facilities from Kentucky Utilities Company ("KU") to Jackson Purchase, or Big Rivers, at reproduction cost but prohibited rate recovery of any amount in excess of net original cost.[4] Subsequent to Jackson Purchase changing power suppliers on January 4, 1984, Big Rivers acquired the facilities at the reproduction cost of $2,172,281 and assumed Jackson Purchase's debt of $1,918,000 associated with those facilities. By its accounting for this transaction, Big Rivers did not include an acquisition adjustment to reflect the difference between the net reproduction cost of $2,172,000 and the net original cost of $989,061 determined in Case No. 7787. Big Rivers reflected the reproduction cost as though it were original cost in its books of account, and therefore included recovery of the reproduction cost in its rate application.

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3 Big Rivers' Response to AG Data Request, First Section, Item No. 54a.

4 Commission's Order in Case No. 7787, dated November 11, 1983.

The Commission, in accordance with its determination in Case No. 7787, will not allow the recovery of amounts in excess of net original cost in this proceeding. Therefore, Big Rivers' rate base has been reduced by $1,183,220, from $2,172,281 to $989,061, to reflect only the net original cost of the KU transmission facilities acquired from Jackson Purchase. The Commission is of the opinion that Big Rivers should revise its accounting of this acquisition to accurately reflect the acquisition adjustment attendant to such a transaction and revise its 1984 FERC Form No.1 accordingly.

Big Rivers proposed adjustments to reflect the proposed depreciation expense adjustment in the accumulated provision for depreciation and to reflect its proposed expense adjustments in the calculation of cash working capital. The Commission has modified these proposals to reflect the pro forma expense adjustments allowed herein. All other elements of the net investment rate base have been accepted as proposed by Big Rivers. The net original cost rate base devoted to jurisdictional operations is determined by the Commission to be as follows:

Utility Plant in Service	$536,615,271
Construction Work in Progress	382,566
Total Utility Plant	$536,997,837
Add:	
Materials and Supplies	35,515,411
Prepayments	315,371
Cash Working Capital	21,349,107
Subtotal	$ 57,179,889
Less:	
Accumulated Depreciation	92,636,925
Net Original Cost Rate Base	$501,540,801

Capitalization

Big Rivers presented a pro forma capitalization of $572,360,944 consisting of $534,612,034 in debt and $37,748,910 in equity. Mr. Maurice Brubaker, Vice-President of Drazen-Brubaker & Associates, Inc., witness for Alcan, proposed an adjustment to reduce capital to an amount equal to Big Rivers' proposed rate base. Mr. Brubaker stated that the purpose for this adjustment was to synchronize interest expense with the amount of the investment base which ratepayers support through rates.[5] The concept of synchronizing or limiting capital to an amount equal to rate base is one which the Commission endorses and generally employs in determining revenue requirements for investor-owned utilities. However, in determining revenue requirements for a cooperative, the Commission includes non-operating income, such as interest income, in its determination, which necessitates recognition of the investments which generate that income. Mr. Brubaker recognized that a portion of Big Rivers' debt supported investment in items not included in the rate base;[6] however, Mr. Brubaker made no determination of those items.[7] In attempting to synchronize capital with rate base, Mr. Brubaker calculated an adjustment to reduce interest expense by approximately $1 million: the interest income, by which Big Rivers' revenue requirement is reduced, is in the amount of $950,000. It is apparent that the

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5 Brubaker Prepared Testimony, p. 13.

6 Ibid., p. 14.

7 T.E., March 20, 1985, pp. 57-58.

non-rate base items which Mr. Brubaker would exclude from capital have generated income which reduces the revenue required from ratepayers. To exclude those items from capitalization while using the income they generate to reduce Big Rivers' revenue requirement would result in a double benefit to which ratepayers are not entitled. Therefore, the Commission will not accept the reduction to capital proposed by Mr. Brubaker.

As stated in the preceding section, the Commission has concluded that Big Rivers should be allowed to recover the costs of a 161 KV line connecting the Reid and Coleman stations rather than the full cost of the Wilson 345 KV line and its related facilities. Accordingly, the Commission has reduced Big Rivers' pro forma capitalization, as it reduced rate base, by $39,936,761, of which $38,587,160 was a reduction of debt and $1,349,601 was a reduction of equity.

The Commission has likewise reduced capital by $1,183,220 to exclude the cost of the Jackson Purchase-KU transmission facilities in excess of net original cost. Of this amount, $928,939 is a reduction of the total debt of $1,918,000 assumed by Big Rivers for these facilities and $254,281 is a reduction of equity for the amount of general funds used by Big Rivers to acquire these facilities.

Therefore, for rate-making purposes, the Commission has determined Big Rivers' capitalization to be $531,240,963, consisting of $495,095,935 in debt and $36,145,028 in equity.

REVENUES AND EXPENSES

For the test year, Big Rivers' results of operations produced a net margin of $8,918,060. Big Rivers proposed several adjustments to its test-period revenues and expenses which resulted in an adjusted net loss of $6,146,323. The Commission is of the opinion that the proposed adjustments are generally proper and acceptable for rate-making purposes with the following exceptions:

Revenues from Off-System Sales

During the test year, Big Rivers sold 1.9 million megawatt hours ("MWH") of electricity to other utilities which produced $48 million in revenue. On a pro forma basis, Big Rivers has projected total off-system sales of 1.5 million MWH, of which approximately 850,000 MWH, including a firm power sale of 54 megawatts to the Municipal Energy Agency of Mississippi ("MEAM") has been allocated to the Wilson system. The remainder of the projected sales, approximately 650,000 MWH, Big Rivers assigned to its existing system, and projected annual revenues from these sales of $12.8 million.

Big Rivers explained that the reduction in off-system sales from the existing system was due to increased capacity requirements to meet its internal sales levels and the loss of contracted off-system sales that were available during the test year.

The intervenors, primarily NSA and Alcan, contend that Big Rivers has greatly understated its revenue from off-system sales. Mr. Bruce Ambrose, Vice-President of Economic Research Associates, Inc., witness for NSA, testified that Big Rivers had understated its revenue from off-system sales by approximately $23 million by understating the level of off-system sales that could be made from the existing system by 1.1 million MWH.[8] Alcan's witness, Mr. Brubaker, proposed that the non-firm sales of approximately 466,000 MWH that Big Rivers had assigned to the Wilson system be assigned to the existing system, which would increase revenues from off-system sales by $9.3 million.[9]

Big Rivers has argued that, after recognizing the requirements of its increased internal sales, it does not possess the excess capacity to make the levels of off-system sales it has made in the past. NSA maintains that Big Rivers has understated its available capacity by its failure to reflect any capacity from its 65 megawatt combustion turbine, the 178 megawatts available through its contract with the Southeastern Power Administration ("SEPA") or the minimum 100 megawatts NSA believes is available through Big Rivers' interconnections with other utilities.

Big Rivers contends that it is unrealistic to rely on its combustion turbine in planning or making inter-system sales. Big Rivers also maintains that, due to the maximum availability of 220 hours per month for power under its SEPA contract, no more than 51 megawatts should be considered as capacity available for sale. Furthermore, Big Rivers argues that its interconnections provide

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8 Ambrose Prepared Testimony, p. 15.

9 Brubaker Prepared Testimony, p. 7.

no firm power commitments which should be considered in planning sales to other utilities.

Alcan contends that Big Rivers intends to pursue the same aggressive marketing policy for off-system sales as in recent years, but divert the benefit of those sales away from existing customers. Alcan has emphasized that, during 1984, after Big Rivers' internal system sales had increased from the curtailed levels of 1983, Big Rivers again was able to make off-system sales of approximately 1.9 million MWH.

The Commission agrees with Big Rivers' position that the firm sale of 54 megawatts to MEAM is properly assigned to the Wilson system. The assignment of the MEAM sale to the existing system as proposed by NSA would reduce the reliability of the system as Big Rivers has stated.

The Commission, however, does not agree with Big Rivers' assignment of 466,000 MWH of non-firm sales to the Wilson system. The combustion turbine, SEPA power and interconnections exist primarily to increase reliability, and with such reliability, Big Rivers was able to make total sales of 9.2 million MWH in 1984. It is the Commission's opinion that the only sales that should be assigned to the Wilson system are those sales which could not be made absent the existence of Wilson No. 1. The record shows that Big Rivers' existing system, through internal generation, SEPA power, and purchases through its interconnections, has made sales well in excess of the 8.7 million MWH projected in this proceeding for internal system sales and non-firm off-system sales. The Commission finds that the existing system is capable of making those sales even considering that maintenance was held to a minimum in 1984 and will need to be increased in the future. Therefore, the Commission has assigned the total projected non-firm off-system sales to the existing system for rate-making purposes. Using Big Rivers' projected millage price of 20 mills and the system average fuel cost of 14.99 mills results in an adjustment to increase revenue by $9.3 million and an increase in fuel cost of $7.1 million.

Wilson Transmission Facilities

Big Rivers included $6.5 million for depreciation, property taxes and interest expense associated with the Wilson 345 KV transmission system in its pro forma expenses. As previously discussed, for rate-making purposes the Commission has limited Big Rivers' investment in these facilities to the amount of $6.9 million that would have been incurred to construct the Reid-Coleman 161 KV line. Based on this level of investment and using the interest, depreciation and tax rates presented by Big Rivers in its application, the Commission has calculated pro forma fixed charges of approximately $1 million for this investment. This determination results from a reduction of $4,245,000 to Big Rivers' pro forma interest expense, a reduction of $1,054,000 to pro forma depreciation and a reduction of $205,000 to pro forma property tax expense.

Jackson Purchase-KU Transmission Facilities

As discussed in another section of this Order, Big Rivers recorded its acquisition of certain transmission facilities from Jackson Purchase at their net reproduction cost of $2,172,281.[10] This was the price Jackson Purchase had been required to pay KU, even though the facilities' depreciated net original cost was $989,061.[11] Using the net reproduction cost, Big Rivers proposed adjustments of $137,617 to increase interest expense and $59,738 to increase depreciation expense. Reflecting the depreciated net original cost and using the debt allocation, interest rates and depreciation rates presented by Big Rivers, the Commission has calculated a pro forma increase in interest expense of $70,966 and an increase in depreciation expense of $27,199. The combined effect of these adjustments is to reduce Big Rivers' pro forma expense levels by $99,190.

Allocation of Administrative and General Expenses

Dr. Howard W. Pifer, III, of Putnam, Hayes & Bartlett, Inc., witness for NSA, recommended that an adjustment should be made to Big Rivers' pro forma expense levels to reflect the proper allocation of the account, Administrative and General Expenses, between the Wilson system and Big Rivers' existing system, which does not include Wilson.[12] In making his adjustment, Dr. Pifer

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10 Big Rivers' Application, Case No. 9006, Exhibit 5, Entry 26, p. 5.

11 Letter of J. W. Tipton, KU Engineering Director, of October 25, 1983.

12 Pifer Prepared Testimony, pp. 22-23.

determined that Wilson No. 1 has a net capacity of 395 megawatts, which represents 23.5 percent of Big Rivers' generating capacity.[13] Dr. Pifer applied the 23.5 percent to Big Rivers' 1985 budgeted amount for Administrative and General Expenses of $8,369,394 with the result of $1,966,808 which he recommended be allocated to the Wilson system.[14]

Big Rivers has maintained that an allocation such as proposed by Dr. Pifer is not required. Big Rivers has also stated that the separation of costs between the existing system and the Wilson system admittedly is not perfect nor need it be for present purposes.[15] While perfection may be impossible, the Commission believes a certain degree of accuracy is required, and therefore accepts, in concept, the recommendation of Dr. Pifer.

The Commission has modified Dr. Pifer's adjustment so that those expenses directly attributable to the existing system are not assigned to Wilson. The expenses which should be allocated are administrative and general salaries and the fringe benefits and overheads assignable to administration and general salaried employees.

For the test year, Big Rivers reported administrative and general salaries of $2,275,055.[16] Reflecting the 5.5 percent increase granted in 1984 results in normalized administrative and

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13 Ibid.

14 Ibid., p. 23.

15 Big Rivers' Post-hearing Brief, p. 23.

16 Big Rivers' 1983 FERC Form 1, p. 354.

general salaries of $2,400,183. To this amount the Commission has applied the 23.5 percent allocation factor developed by Dr. Pifer which results in an allocation of $564,043 of salary expense to the Wilson system.

For fringe benefits and overheads, Big Rivers calculated a pro forma level of $5,114,248. To this amount the Commission has applied a percentage of 11.95 which is the ratio of administrative and general salaries to total salaries and wages,[17] which results in $611,153 as the amount of benefits and overheads assignable to administrative and general salaried employees. Applying the Wilson allocation factor of 23.5 percent to this amount results in an allocation of $143,621 of benefits and overheads expense to the Wilson system. The result of these allocations is an adjustment to reduce Big Rivers' cost of service for the existing system by $707,664.

<u>Non-Recurring Expense: Hydroelectric Study</u>

During the test year Big Rivers charged $440,992 to expense for the cost of a study on the feasibility of installing hydroelectric generating facilities on the Ohio River. The AG's witness, Mr. Hugh Larkin, of the firm Larkin & Associates, CPAs, recommended the elimination of this expense for rate-making purposes on the grounds that this expense was of an abnormal and non-recurring nature. Big Rivers agreed that this was a non-recurring, abnormal expense but maintained that, in light of the

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[17] $2,400,183 ÷ $20,084,040 = 11.95 percent.

current difficulties it was facing, non-recurring expenses for outside services will continue to be incurred.[18]

The Commission is of the opinion that expense levels established for rate-making purposes should not reflect abnormal, non-recurring expenditures. If Big Rivers' present difficulties cause it to continue to incur such expenses, those difficulties are due to the construction of the Wilson Station, the costs and effects of which are not to be reflected in this rate proceeding. Therefore, the Commission has accepted the AG's recommendation and has reduced Big Rivers' pro forma operating expenses by $440,992.

Donations Expense

During the test year Big Rivers incurred $45,417 in expense for donations and contributions to various educational, charitable and civic organizations. The record herein includes no persuasive evidence to show that these contributions benefit Big Rivers' ultimate consumers. The Commission, as a matter of practice, has consistently denied the inclusion of such contributions for rate-making purposes and finds that Big Rivers has presented no evidence in this proceeding to cause a departure from this practice. Therefore, the Commission has made an adjustment to eliminate this expense for rate-making purposes.

Fuel Cost Synchronization

Mr. Larkin proposed an adjustment of approximately $1,327,167 to reduce test-year revenues for what he described as

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18 Response to Commission's Second Information Request, Case No. 9163, Item No. 6, p. 1.

an over-collection of fuel revenues. Mr. Larkin contended that Big Rivers over-collected $1,089,843 in July 1983 due to the increase in the base fuel cost from 13.57 mills/KWH to 15.56 mills/KWH during that month. Mr. Larkin further stated, "The company's methodology results in an over-collection in that the company recovers the fuel cost twice - once through the fuel adjustment clause and once through base rates."[19] Furthermore, Mr. Larkin contended that, after excluding the over-collection of fuel revenues in July 1983 fuel revenues collected during the test year exceeded test-year fuel costs by an additional $237,324.

Mr. James Haner, manager of accounting for Big Rivers, testified that Big Rivers had not collected the same fuel cost twice.[20] Moreover, on cross-examination, Mr. Haner indicated that Big Rivers had billed its customers the correct base fuel cost.[21]

The preponderance of Mr. Larkin's proposed adjustment deals with the methodology utilized by this Commission to change the base fuel cost. The Commission is of the opinion that any question of methodology should be addressed in a fuel adjustment clause proceeding and not in this rate case. The methodology used by the Commission to change Big Rivers' base fuel cost was determined in Case No. 8054, An Examination by the Public Service Commission of the Application of the Fuel Adjustment Clause of Big

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19 Larkin Prepared Testimony, p. 4.

20 T.E., March 15, 1985, p. 206.

21 Ibid., pp. 203-206.

Rivers Electric Corporation pursuant to 807 KAR 5:056E, Sections 1(11) and (12). Mr. Larkin has not performed an in-depth analysis to determine if any over-collection was actually due to the change in the base fuel cost, a possible mismatch of fuel revenues and expenses, varying sales volumes or some combination thereof.

Certainly, the Commission does not wish to give Big Rivers, or any electric utility, the opportunity to recover the same fuel costs twice. Likewise, the Commission does not wish to penalize Big Rivers or any other electric utility unjustly. The Commission is of the opinion that Big Rivers did not over-collect in July 1983 due to the increase in base fuel cost and that no adjustment for fuel cost synchronization is necessary.

AG Adjustment-Overtime Wages

AG witness Mr. Larkin proposed an adjustment to reduce Big Rivers' pro forma wages and salaries expense by $668,477. Mr. Larkin explained that a lower level of overtime wages accounted for $522,445 of this amount but that he had made no analysis of the remaining difference of $146,002. Mr. Larkin calculated his adjustment using the wage adjustments presented by Big Rivers in Case No. 9006 as his starting point. Big Rivers erred in its adjustments in Case No. 9006 by calculating overtime wages at regular hourly rates rather than at time-and-a-half rates. This error on the part of Big Rivers accounts for the lower level of overtime wages computed by Mr. Larkin in his proposed adjustment. As to the remaining $146,000 of Mr. Larkin's adjustment, the Commission has determined that this amount can be attributed to the promotion, reclassification and merit-type increases granted during the first 9 months of 1984. The Commission, therefore, is of the opinion that Big Rivers' adjustment is appropriate and the reduction proposed by the AG should be rejected.

Miscellaneous AG Adjustments

Mr. Larkin proposed an adjustment to eliminate the expense of $105,007 Big Rivers incurred during the test year for the deferred compensation plan available to its management employees. Mr. Larkin also proposed an adjustment to reduce by one-half the pro forma cost of $143,241 for Big Rivers' long-term disability insurance. Mr. Larkin offered little support for these adjustments except to say that the costs appeared to be out of line and that the Commission should consider these expenditures in relation to the requested rate increase.

The Commission has not accepted these adjustments due to their lack of support. However, the Commission does expect Big Rivers to review these and other discretionary expenditures as it attempts to deal with the problems related to the Wilson plant. In particular, Big Rivers should review and analyze its procedures for the procurement of insurance coverages to insure that it is receiving the maximum coverage necessary at the least possible cost. Moreover, since Big Rivers has no written procedures for procuring insurance, the Commission will require Big Rivers to submit a report detailing a plan to implement such procedures. In future rate cases, Big Rivers should be prepared to document its insurance expenditures and demonstrate its efforts to secure the best coverage for the least premium.

After all adjustments found reasonable herein are included, the Commission finds that Big Rivers' results of operations should be adjusted as follows:

	Actual Test Year	Adjustments	Adjusted Test Year
Operating Revenue	$258,276,967	$(13,309,884)	$244,967,083
Operating Expenses	212,018,808	(11,971,247)	200,047,561
Operating Income	$ 46,258,159	$(1,338,637)	$ 44,919,522
Other Income and Deduction (Net)	779,420	(44,666)	734,754
Interest on Long-Term Debt (Net)	38,119,519	4,687,594	42,807,113
Net Margins	$ 8,918,060	$(6,070,897)	$ 2,847,163

REVENUE REQUIREMENTS

Big Rivers requested a net margin in this proceeding sufficient to produce a TIER of 1.225. During the test year Big Rivers achieved a TIER of 1.09. The AG recommended a TIER of 1.15, while Alcan recommended 1.10 and NSA recommended a TIER of 1.07. Thus, the record in this case reflects a TIER ranging from 1.07 to 1.225.

Based on rates granted in January 1981 with a TIER of 1.225, Big Rivers has achieved TIERs of 1.15, 1.05, 1.09 and 1,04 in the years 1981-1984. In its brief, Big Rivers cites "rate lag" or attrition as the primary reason for its requested TIER. Also, Big Rivers cites that it has no line of credit or other source of funds for capital construction or emergencies.

The Commission recognizes that Big Rivers' achieved TIERs have been less than those authorized. However, as the intervenors have cited, Big Rivers has been involved in a major construction program during the past 4 years. Furthermore, Big Rivers' TIER award in 1981 came at a time when double-digit inflation was being experienced. Since that time, with inflation averaging 4 percent over the years 1982-1984, Big Rivers' achieved TIERs have been very consistent, ranging from 1.04 to 1.09, with an average of 1.06.

As Big Rivers has stated, the test year costs in this case are approximately 2 years old. However, in accordance with normal rate-making procedures (i.e., adjusting the historical test period for known and measurable changes), the adjusted operating results are representative of future operations. Thus, the adjusted results should be achievable under the parameters of this case.

Big Rivers' current lack of a line of credit is due solely to the financial problems related to the Wilson plant. As stated many times in this record, the costs and problems attendant to the Wilson plant will not be reflected in Big Rivers' current rates. Therefore, the Commission has not considered this issue in evaluating the appropriate TIER level.

Big Rivers' adjusted test-year operating results produce a TIER of 1.07 which is greater than the 1.0 TIER required by Big Rivers' mortgage agreement. Based on these results, the Commission concludes that, absent the presence of the Wilson unit, this rate filing would not have been necessary. Furthermore, as Big Rivers has stated, its rates are based upon its needs to pay its operating expenses and meet its debt requirements. Based on the determination herein of the appropriate expense levels, Big Rivers' current rates will meet these needs.

Any revenue award made in this case would be immaterial to Big Rivers' current financial condition and could only be justified based on an increased TIER. Inasmuch as this rate filing would not have been necessary but for the presence of the Wilson unit, any increase granted herein could be attributable to that factor alone.

Big Rivers' adjusted TIER of 1.07 is equal to the TIER recommended by NSA and is greater than the TIER Big Rivers has achieved in 2 of the last 3 years. Within the confinements of this proceeding, a 1.07 TIER will enable Big Rivers to satisfy the conditions of its mortgage agreements and provide reliable service to its ultimate consumers at the lowest possible cost. Therefore, based on the evidence of record, the Commission has determined that no increase in revenues is necessary, or justified, and therefore, none has been granted.

RATE DESIGN

In most cases before this Commission, when a decision is reached that no increase in revenues is required, any discussion concerning rate design becomes moot. That general proposition is not true in this case. During this proceeding, several witnesses for both Alcan and NSA testified that stable and competitive electricity rates are needed to keep the aluminum smelters in a viable position during the current downturn in the aluminum market. Big Rivers receives approximately 75 percent of its revenue from Alcan and NSA. Accordingly, Big Rivers' viability is dependent upon the continued operation of the aluminum smelters and their fates are inextricably entwined.

The depressed market for aluminum ingots has placed the NSA and Alcan aluminum smelters in a precarious position. Mr. Kenneth T. Wise, Director of Putnam, Hayes and Bartlett, Inc., a witness for NSA, testified that "NSA is not covering its 'cash costs' of production."[22] Mr. Lester, a witness for Alcan, testified that electricity costs account for about 35 percent[23] of the cost to produce aluminum and that this makes the Alcan smelter in Seebree an "obvious candidate for cutbacks"[24] given the current price of aluminum ingots. The closing of either of these smelters would certainly trigger a disastrous sequence of events for Big Rivers and its other customers.

It was in recognition of these facts that NSA filed its complaint against Big Rivers wherein the Commission was requested to set a rate for power which would enable NSA to operate competitively. NSA's complaint was subsequently amended to request approval of a combined demand and energy charge of 22 mills/KWH, approximately 6 mills lower than its present rate. While the Commission fully recognizes the need by NSA and Alcan for a rate that will afford them the opportunity to continue operations in Kentucky, the evidence in this case will not support a rate

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22 Wise Prepared Testimony, p. 5.

23 T.E., March 19, 1985, p. 108.

24 Ibid., p. 109.

reduction. NSA further moved that the Commission establish an automatic adjustment clause whereby Big Rivers' rates would include only the interest expense actually paid to REA on the existing system. The Commission finds that this proposal would result in a rate change which, pursuant to KRS 278.180, requires the Commission to give prior notice to Big Rivers. Since no such notice was given by the Commission, NSA's request must be denied.

In an effort to promote the continued operation of the aluminum smelters in Kentucky, Dr. Pifer, a witness for NSA, has proposed a rate structure which links the demand charge paid by NSA to the market price of aluminum ingots.[25] Mr. Lester, a witness for Alcan, has also testified that a formula approach which ties the price of electricity to the market price for aluminum has worked elsewhere and should be considered here for both of the smelters served by Big Rivers.[26] The basic steps in their proposal would be to establish a cost-based demand charge for the Big Rivers customers. However, the amount of the demand charge actually paid by the aluminum smelters at any particular time would be dependent upon the market price for aluminum. If the aluminum ingot price was below a specified level, the aluminum companies would not pay all of the demand charge at that time, but the shortfall would be accrued and paid to Big Rivers when the price of aluminum increased. The appeal of this rate structure is

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25 Pifer Prepared Testimony, pp. 40-43.

26 T.E., March 19, 1985, p. 126.

that rates are still based on cost, which is the foundation of the Commission's rate-making philosophy. This proposed rate structure would not require a subsidy from Big Rivers or its other customers to the aluminum smelters.

Although the Commission agrees that there is considerable merit in the rate structure concept as proposed by the aluminum companies, there is no specific contract before the Commission at this time to accept or reject. However, there is no increase in Big Rivers' rates resulting from this case and the Commission believes the current rates should be continued, allowing the status quo to be maintained. The Commission strongly suggests that the parties attempt to negotiate a contract that incorporates the rate structure concept as discussed above. It is anticipated that such a contract would involve extensive and complex negotiation. It is understood that it is difficult to initiate this type of concept when the aluminum market is in its present depressed condition. However, it is conceivable that provisions could be included in the contract to make it acceptable to all parties. For instance, provisions such as interest on the accrued balance, guaranteed payment of the accrued balance and periodic payment of a portion of the accrued balance are terms that might enable the parties to overcome the obstacles of implementing this program currently.

The parties to this negotiation would include Big Rivers, the distribution cooperatives, Alcan and NSA and its parent companies. In addition, a representative of the Commission should participate as an observer to keep the Commission informed so that a protracted proceeding may not be required for Commission approval of a final contract. Similarly, since REA approval would also be required, the parties should encourage REA's participation.

OTHER ISSUES

At the end of the test year, Big Rivers had a coal inventory valued at $26,076,168, which consisted of 873,143 tons, or an 81-day supply, based on Big Rivers' 12-month average daily burn rate of 10,731 tons per day. This level is within Big Rivers' stated coal inventory goal of maintaining a 60-day supply of coal under normal circumstances, and increasing to a 90-day supply in preparation for a possible strike by the United Mine Workers. Big Rivers indicated that its coal inventory goal was set with consideration given to carrying costs, possible production and/or transportation interruptions and possible coal shortages.

Mr. Joe L. Craig, manager of fuels for Big Rivers, testified that Big Rivers had not prepared any type of economic analysis to determine an optimal level of coal inventory.[27] However, Mr. Craig did indicate that such an analysis could be performed.[28]

The Commission has evaluated Big Rivers' year-end coal inventory and has determined that no adjustment is necessary. The Commission is encouraged that Big Rivers understands the need to

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27 T.E., March 15, 1985, p. 120.

28 Ibid., p. 121.

control its coal inventory and is taking steps to do so--steps like developing a formal coal inventory policy. However, the Commission is concerned that Big Rivers' target coal inventory level was determined only by judgmental methods.[29] The Commission acknowledges the steps taken by Big Rivers to manage its coal inventory but believes there is room for improving this management effort. Specifically, the Commission expects Big Rivers to develop a formal cost-benefit analysis of its coal inventory level (inventory model) and to incorporate such an analysis into future rate applications to support its target coal inventory level.

SUMMARY

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

1. The adjusted earnings of Big Rivers, based on the determinations herein, are sufficient to provide for its reasonable financial obligations, meet the requirements of its lenders, and provide a reasonable return.

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

3. Big Rivers should file within 90 days from the date of this Order its plan to implement a formal program for purchasing insurance at the lowest possible cost.

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29 Ibid., p. 120.

IT IS THEREFORE ORDERED that the rates proposed by Big Rivers be and they hereby are denied.

IT IS FURTHER ORDERED that the rates currently being charged by Big Rivers shall remain in effect.

IT IS FURTHER ORDERED that within 90 days from the date of this Order Big Rivers shall submit a report detailing a plan to implement procedures for the procurement of insurance.

Done at Frankfort, Kentucky, this 6th day of May, 1985.

PUBLIC SERVICE COMMISSION

Richard D. Heman Jr.
Chairman

Vice Chairman

Commissioner

ATTEST:

Secretary