

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

GREEN RIVER ELECTRIC CORPORATION        )  
NOTICE OF INCREASE IN RATES FOR        ) CASE NO. 10275  
RETAIL ELECTRIC SERVICE                 )

O R D E R

On June 30, 1988, Green River Electric Corporation ("Green River") filed with this Commission its notice of an increase in rates for retail electric service to become effective on August 1, 1988. This proceeding combines Green River's request for a general rate increase with its request to flow-through the increase in wholesale rates proposed by Big Rivers Electric Corporation ("Big Rivers") in Case No. 10265, Big Rivers Electric Corporation's Notice of Changes in Rates and Tariffs for Wholesale Electric Service. The proposed rates to flow-through the increase proposed by Big Rivers would produce additional revenue of \$3,703,720 annually, an increase of 2.82 percent based on normalized test-period revenues. The proposed rates for the general increase, as amended, would produce additional revenue of \$556,887 annually, an increase of .4 percent over normalized test-period revenue adjusted for the proposed flow-through. The total increase requested is \$4,260,606 or 3.25 percent over normalized test-period operating revenue. In addition to flowing through the increase in wholesale rates proposed by Big Rivers, Green River stated that the proposed changes in rates were to generate

additional revenue to cover increased operating costs, to provide the margin required to achieve a Times Interest Earned Ratio ("TIER") of 2.00X, and to reallocate certain revenue responsibility among Green River's rural customers in accordance with Green River's prepared cost-of-service study.

On July 26, 1988, the Commission issued a procedural Order suspending the proposed increase in rates for a period of 5 months, until January 1, 1989, in order to conduct public hearings and investigations into the reasonableness of the proposed rates. A hearing was scheduled for November 15, 1988 for the purpose of cross-examination of the witnesses of Green River and the intervenors. Green River was directed to provide statutory notice to its consumers of the proposed rate increase and the scheduled hearing pursuant to 807 KAR 5:011, Section 8.

The Commission granted Motions to Intervene filed by the Utility and Rate Intervention Division of the Office of the Attorney General ("AG"); National-Southwire Aluminum Company ("NSA"); Kentucky Cable Television Associates ("KCTA"); and Willamette Industries Incorporated ("Willamette"). Testimony was filed by witnesses for Willamette on October 5, 1988. On October 21, 1988, Green River filed a Motion to strike the testimony of Willamette. Subsequently, Willamette filed a Motion to withdraw its testimony which was granted by the Commission on November 11, 1988. No other intervenors filed testimony in this proceeding.

The hearing was conducted in the Commission's offices in Frankfort, Kentucky, on November 15, 1988. The KCTA and Willamette did not participate in the public hearing. Briefs were

filed on December 5, 1988, and the information requested during the hearing has been submitted. On December 16, 1988, Green River filed a motion for leave to file a reply brief responding to arguments in NSA's brief regarding diversification activities. Based on the Commission's decision to defer the diversification issue to a new administrative case, the merits of the issue will not now be addressed. Therefore, the motion should be denied.

#### COMMENTARY

Green River is a consumer-owned rural electric cooperative corporation, organized under Chapter 279 of the Kentucky Revised Statutes, engaged in the distribution and sale of electric energy to approximately 24,709 member-consumers in the Kentucky counties of Breckinridge, Daviess, Hancock, Henderson, Hopkins, McLean, Muhlenberg, Ohio, and Webster. Green River has no electric generating facilities of its own, and purchases all of its power from Big Rivers, of which Green River is one of four members.

#### TEST PERIOD

Green River proposed and the Commission has accepted the 12-month period ending December 31, 1987 as the test period for determining the reasonableness of the proposed rates. To make the historical test period more reflective of expected future needs, the Commission has given full consideration to appropriate known and measurable changes.

#### VALUATION

##### Net Investment

Green River presented in Exhibit 6 to its Application a net investment rate base of \$33,728,303 based on the test-year-end

value of plant in service, the 13-month average for materials and supplies, and prepayments, and excluding the proposed pro forma accumulated depreciation and customer advances for construction at the end of the test period. In addition, Green River proposed to include working capital based on one-eighth of operation and maintenance expenses, exclusive of depreciation, taxes and other deductions. The Commission concurs with this determination with the exception that working capital has been adjusted to reflect the pro forma adjustments to operation and maintenance expenses found reasonable.

Based on these adjustments, Green River's net investment rate base for rate-making purposes is as follows:

Utility Plant in Service	\$ 40,757,051
Construction Work in Progress	201,414
Total Utility Plant	<u>\$ 40,958,465</u>
ADD:	
Materials and Supplies	\$ 538,448
Prepayments	231,653
Working Capital	567,344
Subtotal	<u>\$ 1,337,445</u>
DEDUCT:	
Accumulated Depreciation	\$ 8,360,785
Customer Advances for Construction	210,636
Subtotal	<u>\$ 8,571,421</u>
 NET INVESTMENT	 <u>\$ 33,724,489</u>

### Capital Structure

The Commission finds, from the evidence of record, that Green River's capital structure at the end of the test period for rate-making purposes was \$40,093,008 and consisted of \$14,694,285 in equity and \$25,398,723 in long-term debt. In this determination of the capital structure, the Commission has excluded accumulated

generation and transmission capital credits ("GTCCs") from Green River's wholesale power supplier in the amount of \$23,346,133.

The Commission has given due consideration to these and other elements of value in determining the reasonableness of the proposed rate increase.

#### REVENUES AND EXPENSES

Green River proposed several adjustments to revenues and expenses to reflect more current and anticipated operating conditions. The Commission finds the proposed adjustments are generally proper and acceptable for rate-making purposes, with the following modifications:

#### Rate-Making Adjustments

##### Labor Adjustment

In Exhibit 6 to its Application, Green River proposed to increase its test-period labor expense by \$180,599. However, in response to the Commission's Information Request No. 2, Item No. 1, Green River stated that the proposed adjustment was understated due to the omission of standby hours from the calculation. Green River provided a corrected calculation of the labor adjustment in response to the Commission's Information Request No. 3, Item No. 1(e). The corrected calculation resulted in an adjustment of \$196,491.

Green River's pro forma labor cost is composed of three items: base labor, base overtime, and part-time. Green River calculated the amount for base labor by categorizing employees by grade levels and by multiplying the normalized regular hours and standby hours per grade level by the January 1, 1988 average wage

rate per hour. The amended pro forma base labor thus calculated was \$3,142,418. The amounts for base overtime and for part-time of \$296,016 and \$54,678, respectively, were calculated by multiplying the pro forma base labor by the test-period percentages for each item.

The Commission has accepted Green River's calculation for the pro forma base labor cost; however, the Commission is of the opinion that the calculation of base overtime and part-time costs, based on the test-period percentages used by Green River is inappropriate. As shown by its corrected calculation, the application of a percentage to base labor results in an increase in base overtime and part-time labor costs from Green River's original proposal. The calculation of the base overtime and part-time adjustments in this manner indicates that the amount of overtime and part-time hours worked, are affected by standby hours. However, during the public hearing, Green River, while addressing the factors which influence the amount of overtime required of Green River's employees, agreed that standby hours have no effect on overtime or part-time hours.

The Commission is of the opinion that base overtime should be calculated in a manner similar to that for base labor. Therefore, the Commission has included, in pro forma labor costs, base overtime of \$294,226, which was calculated by multiplying the actual test-period overtime hours per grade level by the January 1, 1988 average wage rate per hour times 1.5. In addition, the Commission has included part-time labor at the actual test-period amount of \$50,642. Green River has presented no evidence in this proceeding

which would support an increase in the number of either overtime or part-time hours nor has Green River indicated that it intends to hire additional part-time employees or has granted any wage increase to the part-time employees.

Based on the above, the Commission has determined Green River's pro forma labor cost to be \$3,487,286 and has applied the 74.698 percent expensed during the test period to calculate the adjustment to labor expense. As a result, the Commission is of the opinion that the actual test-period labor expense of \$2,412,795 should be increased by \$192,139 to a level of \$2,604,934.

#### Payroll Tax Adjustment

At the hearing, Green River stated that its proposed adjustment for payroll taxes was based upon 112 full-time employees rather than the 111 actual full-time employees and that it used a federal unemployment tax rate of .6 percent rather than the actual rate of .8 percent. Green River was requested to provide a revised payroll tax adjustment which it filed on November 23, 1988. The revised adjustment, as calculated by Green River, was \$20,805 or \$2,366 greater than originally proposed.

The Commission has determined that Green River should be allowed to increase payroll tax expense by \$20,433 to \$200,764. The Commission's calculation was made in the same manner as reflected in Green River's corrected payroll tax adjustment presented in Item No. 6 of its response to hearing requests for information, except that total pro forma wages and part-time wages

have been adjusted to reflect the Commission's allowed labor adjustment.

#### Interest Expense

Green River proposed an adjustment to increase interest expense on long-term debt by \$80,942 to reflect long-term debt outstanding at the end of the test period, as well as additional debt of \$642,000 drawn subsequent to the close of the test period.

The Commission's prior policy to allow electric cooperatives rate recovery of interest expense on long-term debt drawn down subsequent to the test period began in 1980. In the October 24, 1983 Order in Case No. 8778, Adjustment of Rates of Salt River Rural Electric Cooperative Corporation, the Commission placed all electric cooperatives under its jurisdiction on notice that this policy would be reconsidered in future rate proceedings. In that Order, the Commission stated that updating interest expense based on the balance of long-term debt beyond the test period without reflecting the additional revenues and expenses associated with the facilities constructed with those funds violates the matching concept of historical test-period rate base and operating statement. Since that proceeding, the Commission has consistently excluded adjustments for interest on debt drawn down subsequent to the test period.

In its response to Item No. 2(d) of the Commission's Information Request No. 2, Green River stated that the interest on the debt drawn down subsequent to the test period should be included, because the expenditures occurred during the test period and since both the principal and related interest expense were known and



measurable. Green River argued at the hearing that only about 25 percent of the debt drawn after the end of the test period was related to new member extensions and the remainder was used to construct conversion and tie-line projects that do not result in any immediate revenue impact.

At the hearing, Green River agreed that the member extensions and system improvements associated with the post test-period draw downs will result in additional revenues, additional power cost, and additional expenses other than power cost. However, in its brief, Green River argued that some revenue from new member extensions was realized during the test period and that the system replacements will have no immediate revenue impact. Green River additionally states in its brief that the revenue generated by including out-of-period interest expense is required by Green River for its margins.

Green River has focused on only one aspect associated with the construction of the additional plant: the additional interest expense. Green River has recognized that other expenses and revenues will change as a result of the associated construction but has proposed no adjustments to reflect these changes in operating revenues and expenses. In addition, Green River did not propose to include the additional debt in its capital. With reference to its margins, Green River's need for the revenue related to this expense could have been mitigated by the deferral of discretionary expenses, other cost-saving measures, utilization of a more current test period, or the earlier filing of its request for a rate increase.

The Commission is of the opinion that without recognizing additional operating revenues, operating efficiencies or increased income from additional temporary cash investments which will partially offset the additional interest costs, the inclusion of the post test-period interest in the determination of revenue requirements violates the matching concept and would result in excessive rates for Green River's ratepayers. Therefore, the Commission is of the opinion that the portion of the proposed interest adjustment which represents interest on funds drawn down subsequent to the test period should be denied.

The Commission has included in its determination of Green River's revenue requirements the annual interest expense based on the balance of long-term debt outstanding at the end of the test period and the current interest rates as identified in Green River's response to Item No. 10 of the hearing requests for information with the exception of the loans which total \$206,539. Green River indicates that the current rates for these loans is 10 percent; however, the Louisville Bank for Cooperatives' Notices of Payment Due, filed in response to Item No. 2(b) of the Commission's Information Request and filed with Green River's monthly reports, indicate that the appropriate current interest rates for these loans are as shown below:

<u>Loan No.</u>	<u>Amount</u>	<u>Interest Rate</u>	<u>Expiration Date</u>
21167	\$ 28,757	8.5	5/1/90
21165	38,625	9.2	8/1/89
24942	64,900	8.5	5/1/90
27749	<u>74,257</u>	9.3	4/3/89
TOTAL	<u>\$206,539</u>		

Therefore, the Commission has determined that the actual test-period interest expense of \$1,355,940 should be increased by \$48,218 to \$1,404,158.

Property Tax Adjustment

Green River proposed to adjust its property tax expense by \$15,540 based on the December 31, 1987 property tax return filed with the Kentucky Revenue Cabinet and the 1987 tax rates. In response to Item No. 4 of the Commission's Information Request No. 2, Green River provided the workpapers supporting the calculated assessment for each category of property included in the adjustment. Also, in response to Item No. 7 of the hearing requests for information, Green River filed the Notice of Assessment, Notice of Tax Due, Certification of Public Service Company Property Assessment, and its Local Property Tax Calculation. Based on a review of the information filed in these responses, it is apparent that Green River followed the basic format used by the Revenue Cabinet to determine its property tax assessment; but, Green River did not calculate the assessment in the same manner as used by the Revenue Cabinet.

The Commission is of the opinion that Green River should calculate its property tax adjustment utilizing the Revenue Cabinet's methodology for determining the assessed value of Green River's property, or the actual current tax assessments, if available, and the most current tax rates. The property tax adjustment resulting from the use of this information, as provided in response to Item No. 7, is \$68 greater than proposed by Green River. The Commission recognizes that this difference is not significant; however,

the methodology employed and information used in the adjustment is the most accurate, current information available. In some instances, the methodology used by Green River could result in a significant difference. Therefore, the Commission has increased Green River's proposed adjustment by \$68 to \$15,608.

Workers' Compensation Adjustment

Green River proposed to increase its test-period workers' compensation expense by \$25,278. The proposed adjustment applied the policy rates that were renewed October 29, 1987 and the special assessment passed by the Kentucky Legislature to the amount of pro forma labor subject to workers' compensation, as indicated by the pro forma labor adjustment. In addition, in its calculation, Green River utilized an experience modification factor of .93 percent. However, Green River's response to Item No. 6 of the Commission's Information Request No. 2, indicated that effective January 1, 1988, the modification factor was increased to 1.19 percent. At the hearing, Green River indicated that it had renewed the workers' compensation policy effective October 29, 1988. This current policy was filed in response to Item No. 8 of the hearing requests for information.

The Commission is of the opinion that the rates and factors from the current policy should be used in this adjustment. The Commission has calculated the pro forma labor subject to workers' compensation in the same manner as Green River, based upon the pro forma labor determined to be reasonable by the Commission. Therefore, the Commission has determined that workers' compensation

expense should be increased by \$45,561 over the test-period actual amount of \$24,901 to a level of \$70,462.

#### Defined Contribution Pension Plan Adjustment

Green River proposed an adjustment of \$11,141 to the defined contribution pension plan to reflect the increase in cost based on its proposed increase in base labor cost.

Under Green River's plan, Green River makes a mandatory contribution of 6 percent of base labor and also matches 50 percent of an employee's savings up to a maximum of 5 percent of earnings. Green River's original calculation was based upon its original base labor computation and omitted the matching contribution of \$3,604 for grade level 15. The Commission has recalculated this adjustment utilizing Green River's amended base labor of \$3,142,418, which has been accepted by the Commission, and incorporated the additional \$3,604 omitted from the matching contribution. The result of this recalculation is to increase the test-period expense of \$183,931 by \$14,690 to \$198,621.

#### Major Storm Damage Expense

In response to Item No. 17 of the Commission's Information Request No. 2, Green River indicated that the increase in the test-period expense over 1986 of \$146,081, in Account No. 593.200, Distribution Expense - Maintenance - Storm Damage, was due to the fact that two storms were classified as "major" during 1987 and charged to Account No. 593.200 rather than Account No. 593.000, while no storms were classified as major in 1986. In addition, Green River provided in response to item No. 4(a) of the Commission's Information Request No. 3, the amounts charged as major

storm damage for the past 10 calendar years, a discussion of its accounting for storm damage expenses, and a discussion of the basis upon which it is determined that a storm should be classified as major. Green River also provided additional information on this issue at the hearing.

According to Green River, Account No. 588.100, Distribution Expense - Operations - Storm Damage, and Account No. 593.200, are subaccounts that were set out years ago to provide management and the Board of Directors with the cost of certain storms. At the beginning of a storm, Green River's Director of Operations decides whether or not to charge these subaccounts based upon his determination of whether or not a storm will be major. His decision is arbitrary and, according to Green River's brief, is based on criteria which is undefined and inconsistently applied. According to Green River if a storm blows over and there is little damage, these subaccounts are still charged. Green River indicated that once a decision has been made by the Director of Operations, there is no subsequent review of charges to these subaccounts.

At the hearing, Green River stated that it did not propose an adjustment for major storm damage expenses because the total cost relating to storm damage cannot be quantified and because the storms which occurred during the test period were not catastrophic or disastrous. Green River also argued that an adjustment based on an historical average of expenses should not be made because one item should not be picked out and adjusted without looking at the rest of the test period. As an example, Green River indicated that its load factor is another item which should be reviewed.

Green River's load factor is addressed in the Other Issues Section of this Order.

In its investigation in this proceeding, the Commission reviewed all of Green River's operating expense accounts filed in response to Item No. 16 of the Commission's Information Request No. 1. Based upon the difference and variance in these expenses between the test period and the previous 12-month period, the Commission requested additional information concerning 16 of these accounts. Based upon the Commission's review of Green River's response, the Commission determined that with the exception of major storm damage expense the difference in operating expenses between the test period and the previous 12-month period appeared reasonable. A review of the historical amounts expensed as major storm damage during the past 10 calendar years clearly indicates that this expense fluctuates subject to the random occurrence of severe storms which cannot be accurately predicted and that the actual dollar amount included in the test period is the highest of any period listed.

At the hearing, Green River indicated that to get a proper comparison, these costs should be adjusted for inflation. Below is a comparison of the expense for the most recent 5 historical periods adjusted by an index to reflect the real growth in "Gross National Product" from 1982 to 1987 derived from data in the Federal Reserve Bulletin; Volume 73, pages 893-950, A51; Volume 72, pages 815-852, A51; Volume pages 913-980, A51:

<u>Year</u>	<u>Actual Expense</u>	<u>Index</u>	<u>Adjusted Expense</u>
1987	\$159,376	1.0000	\$159,376
1986	-0-	1.0328	-0-
1985	47,456	1.0606	50,332
1984	19,789	1.0922	21,614
1983	122,685	1.1329	138,990

The 5-year average of the adjusted expense is \$74,062, which is \$85,314 less than the actual test-period expense. The Commission finds that this is a reasonable level of major storm damage costs to include in expenses for the period in which Green River's rates will be in effect.

Although Green River was unable to quantify total expenses related to storm damage, it explained that since test-period overtime was representative then test-period storm damage expenses should also be representative due to the relationship between overtime and storm damage costs. The Commission notes that overtime is but one of several costs included in storm damage expense and that storm damage is but one of several factors that affects overtime. The Commission is concerned by Green River's failure to review the expenses related to major storm damage, by the fact that the criteria upon which these charges are based are applied in an undefined and inconsistent manner, and by Green River's inability to quantify total storm-related expenses, since Green River's objective in establishing the major storm damage subaccounts was to facilitate review by management and the Board of Directors. It is therefore the Commission's opinion that Green River should redefine its storm-related accounting practices and should apply such practices in a consistent manner that will



afford a realistic review of costs related to both major storm damage and total storm damage.

Miscellaneous General Expenses

In response to Item No. 13(c) of the Commission's Information Request No. 2, Green River provided an explanation of the \$4,637 charged to Account No. 930.240, Miscellaneous General Expenses. Additionally, Green River indicated that these expenses were not included in the test-period expenses; however, at the hearing, Green River corrected its response to indicate that the expenses had been included in the test period.

The Commission is of the opinion that expenses associated with the purchase of basketball tickets, gifts and items purchased in connection with employee illnesses or family deaths provide little or no direct benefit to the consumers and should not be included in operating costs for rate-making purposes. Therefore, \$3,175, the amount associated with such items, has been excluded from test-period expenses.

Board of Directors' Expenses

During the test period, Green River charged \$38,885 to Account No. 930.210, Directors' Fees and Expenses. At the hearing, Green River stated that Big Rivers reimburses those Green River directors who also serve on Big Rivers' board for expenses for state and national meetings. Green River has included in its test-period expenses the following amounts which should have appropriately been billed to, and reimbursed by, Big Rivers: \$183, NRECA Annual Meeting, Director Wood; \$381, KAEC Annual Meeting, Director Wood; and \$82, KAEC Annual Meeting, Director

Cecil. It is the Commission's opinion that the \$646 itemized above should be recovered from Big Rivers and not from Green River's consumers. Additionally, the Commission has reduced the test-period expenses by \$548 for the expenses associated with Green River's "director emeritus" who is deceased. The total reduction to Green River's director fees and expenses from the above items is \$1,194.

#### Regulatory Commission Expenses

During the test period, Green River incurred \$65,115 in expenses associated with proceedings before the Commission. In response to Item No. 4(c) of the Commission's Information Request No. 3, Green River stated that amortization was not a consideration because the level of rate case activity that has occurred in the last several years was expected to occur in the future. In addition, at the hearing, Green River indicated that this expense would recur at the test-period level, due to a contemplation that Big Rivers will request a third-step increase in rates, and continued appearances for flow-throughs, fuel adjustment proceedings, REA loan applications, and other proceedings.

The Commission is aware of Green River's increased regulatory expenses but is of the opinion that to include the full test-period amount in expenses is not appropriate. The test period includes \$15,299 related to Green River's intervention in two Big Rivers' rate proceedings and \$48,020 related to Green River's flow-through proceedings. The Commission recognizes that Green River's regulatory expenses have been higher than normal due to Big Rivers' financial difficulties, and the Commission anticipates

that such expenses should decrease as a result of the formalization of the Restructuring Agreement and Workout Plan. In support of its position regarding the level of regulatory expenses, Green River noted the anticipated filing by Big Rivers of a third-step rate increase; however, such a request will not be filed before 1990. There is no reasonable basis to expect Green River's regulatory expenses to be as great during the next 2 years as they were during the test period. The Commission expects the rates to be granted in this proceeding to be effective for 2 years since it is anticipated that Green River will file a flow-through proceeding in conjunction with Big Rivers' next request for a rate increase.

Therefore, the Commission is of the opinion that the test period should be adjusted to include a more reasonable level of regulatory commission expenses. Green River should be allowed to recover the costs associated with this proceeding and the current Big Rivers' rate proceeding over the 2-year period in which these rates are expected to be in effect, as well as the cost of other non-rate case related proceedings. In its determination of the allowable regulatory expenses, the Commission has amortized over 2 years the \$35,000 estimated costs of this proceeding as identified in response to Item No. 22 of the Commission's Information Request No. 1. Labor provided by Green River in the amount of \$10,000 has been excluded from the estimate since labor costs have been normalized by the labor adjustment addressed previously in this Order. Green River has not indicated the costs incurred resulting from its intervention in the current Big Rivers' proceeding. The

Commission is of the opinion that the \$10,516 level incurred in Case No. 9885, amortized over 2 years, should be utilized and will allow reasonable recovery of Green River's intervention in Case No. 10265 and also Case No. 10217, Big Rivers' recent proceeding regarding the Restructuring Agreement. In addition, the Commission has included the actual test-period expenses of \$1,795 associated with non-rate related proceedings. As a result of the above adjustments, the Commission has reduced Green River's actual test-period regulatory commission expense of \$65,115 by \$39,664 to a more reasonable level of \$25,451.

#### Regulatory Assessment Adjustment

Green River proposed three adjustments to its expense for the regulatory assessment which supports the expenses of the Commission. These separate adjustments were to recognize the additional amount of \$11,895 related to the revenue normalization adjustment; \$2,618 to reflect the flow-through adjustment; and \$787 to reflect the additional increase in rates originally proposed by Green River.

Green River applied the 1987 Assessment Rate of .001411 to the revenue subject to the assessment in its determination of the above amounts. At the hearing, Green River accepted that the current assessment rate is .001351, but argued that the current rate should not be used because the adjustments were based on test-period billings and that other cost changes which have occurred have not been reflected. However, Green River has proposed, and the Commission has accepted, the use of the most current cost rates in the adjustments for postage and for the

Rural Kentuckian. The Commission is of the opinion that the current rate of .001351 should be used in the determination of this expense, because it more closely represents the costs which will be incurred during the period in which these rates will be in effect.

Therefore, the Commission has applied the current rate of .001351 to the \$71,653,952 in revenue, subject to the assessment, to calculate an allowable expense of \$96,804, which is \$10,285 above the \$86,519 actual test-period expense. This calculation includes the effects of the normalization and flow-through adjustments only. The additional assessment expense associated with the revenues granted in addition to the flow-through is addressed in the Revenue Requirements Section of this Order.

The effect of the pro forma adjustments on Green River's net income is as follows:

	<u>Actual Test Period</u>	<u>Pro Forma Adjustments</u>	<u>Adjusted Test Period</u>
Operating Revenues	\$132,267,675	\$2,711,436	\$134,979,111
Operating Expenses	130,484,066	2,490,146	132,974,212
Operating Income	<u>\$ 1,783,609</u>	<u>\$ 221,290</u>	<u>\$ 2,004,899</u>
Interest on Long-Term Debt	1,355,940	48,218	1,404,158
Other Income and <Deductions> - Net	<u>390,139</u>	<u>13,595</u>	<u>403,734</u>
NET INCOME	<u><u>\$ 817,808</u></u>	<u><u>\$ 186,667</u></u>	<u><u>\$ 1,004,475</u></u>

#### REVENUE REQUIREMENTS

The actual rate of return earned on Green River's net investment rate base established herein for the test period was 5.29 percent. In the application, Green River requested rates that

would result in a TIER of 2.00X and a rate of return of 7.31 percent.

Green River's actual TIER for the test period was 1.60X and was 1.78X and 1.68X for the calendar years 1985 and 1986, respectively. After taking into consideration the pro forma adjustments in this case, Green River would achieve a 1.72X TIER without an increase in revenues. Green River's equity to total asset ratio is 36.65 percent based on the capital structure approved herein. Green River's debt service coverage for the test period and calendar years 1985 and 1986 was 1.60X, 2.01X and 1.65X, respectively. All of these ratios are based on the earnings of Green River exclusive of the GTCCs assigned by Green River's wholesale supplier, Big Rivers.

In 1981, Green River was granted a rate of return of 11.08 percent which provided a TIER of 2.25X. Recognizing the lowering of interest rates and the overall improvement in economic conditions from those that existed in 1981, the Commission has lowered the rates of return in certain cases involving other utilities under its jurisdiction. Recent decisions in rate cases involving electric cooperatives have resulted in allowed TIER levels of 2.00X reflecting that rates of return and TIER should be reduced. Therefore, based on the evidence of record, the Commission has determined that rates calculated to produce a TIER of 2.00X, as proposed by Green River, should be granted in this case. In order to achieve this TIER, Green River should be allowed to increase its annual revenue after adjustment for the flow-through of Big Rivers' increase by \$400,222, for a rate of return of 7.13

percent. This increase includes an additional \$539 to reflect the associated increase in Green River's regulatory assessment. The net increase granted is \$399,683. This additional revenue should produce net income of \$1,404,158, which should be sufficient to meet the requirements in Green River's mortgages securing its long-term debt.

#### OTHER ISSUES

##### Kentucky Telecommunications, Incorporated ("KTI")

During the course of its investigation in this proceeding, the Commission was made aware of Green River's entry into the non-utility business of satellite telecommunications through the formation of KTI as a subsidiary of Green River. Green River responded to numerous inquiries of the Commission through formal information requests and at the public hearing. The Commission has determined that a formal investigation should be initiated into the issues surrounding the entry of Green River and the other rural electric cooperatives into the non-utility business of satellite telecommunications. Therefore, the issues raised in this proceeding will be deferred for review in the Commission's administrative proceeding.

##### Cost-of-Service

Green River filed an allocated cost-of-service study prepared by Jack D. Gaines of Southern Engineering Company. The cost-of-service study was used as a basis for the allocation of the proposed revenue increase among the regular tariff customer classes.<sup>1</sup>

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<sup>1</sup> Direct Testimony of Jack D. Gaines, page 16.

According to Green River, the cost-of-service study suggests that the single phase class is providing less revenue than its allocated share of costs.<sup>2</sup>

The Commission is concerned that Green River's cost-of-service study includes a distribution plant classification methodology that is based upon default classification percentages which are a part of Southern Engineering Company's cost-of-service study computer software.<sup>3</sup> The Commission is of the opinion that default classification percentages do not accurately reflect the unique nature of Green River's distribution plant accounts. The Commission is encouraged by Mr. Gaines' acknowledgment that Green River has begun maintaining the property records necessary to perform minimum intercept studies that are based on company-specific information.<sup>4</sup> If Green River submits cost-of-service studies in future rate cases, the Commission requests that the classification of plant accounts be performed using the company's own property records, not on the basis of default classification percentages.

Based on the evidence presented in this case, the Commission is of the opinion and finds that Green River's cost-of-service study is acceptable and should be a starting point for rate design.

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<sup>2</sup> Brief of Green River, page 7.

<sup>3</sup> Ibid., page 8.

<sup>4</sup> Transcript of Evidence, page 178.



### Load Factor

Green River's brief, filed on December 5, 1988, raises for the first time an issue regarding the reasonableness of its test-period load factor. Green River suggests that, if an adjustment is made to its storm damage expense, consideration be given to adjusting its wholesale power demand charges to reflect a 5-year average load factor. Green River has calculated the effect of the load factor adjustment as an increase of \$273,060 in purchased power costs. Neither the Commission nor the intervenors have had sufficient time to investigate the reasonableness of this major adjustment. If granted, it would cause Green River's revenue increase to exceed its request by more than \$115,000. The legislative intent of KRS 278.180(1) is clear; utilities must give advance notice of proposed changes in rates. No notice of this change was given with Green River's June 30, 1988 notice of increased rates. Although the load factor adjustment will be denied in this case, the Commission recognizes that Big Rivers' adoption of a ratchet demand charge in 1987 will cause Green River's future power costs to fluctuate with its load factor. Green River should continue to monitor its load factor and review the appropriateness of proposing a normalization adjustment in its next rate case.

### RATE DESIGN

Green River requested an additional increase in revenue of \$556,887, as amended, which it allocated to its regular tariff customers based on its cost-of-service study. The Commission has allowed Green River an increase of \$400,222, or \$156,665 less than

it requested. The reduction in increase has been allocated to the residential class of customers through the customer charge and energy charge.

An alternate customer charge of \$20 for three-phase or large single-phase KVA capacity users in the residential class of service was proposed. This charge was proposed only for customers who are connected for this service after the effective date for rates in this case. The Commission finds that this charge is not fair or equitable in that customers using the same service after the effective date would be paying a substantially higher charge for the same service than existing customers are paying. Therefore, the proposed alternate customer charge is rejected.

Green River has proposed to abolish its current three-phase rate and to create two three-phase rates to separate customers between demands of less than 1,000 KW and demands of 1,000 KW and above. The new three-phase tariffs include three energy rate blocks instead of a flat energy charge to recognize the relationship between load factor and diversity. The three-phase tariff under 1,000 KW has an addition of a primary service discount for customers who own their own equipment. The changes in Green River's three-phase tariff is approved.

Green River has proposed a new section of its outdoor lighting tariff to install an additional charge of \$4.45 per pole to municipal customers requesting underground service with non-standard poles. The additional revenue from this charge is offset by a reduction in the monthly charge for 175 watt mercury vapor lights. This proposed additional charge should be approved.

### SUMMARY

The Commission, after consideration of the evidence of record and being advised, is of the opinion and finds that:

1. The rates in Appendix A, attached and incorporated hereto, are the fair, just, and reasonable rates for Green River and will produce gross annual revenues based on normalized test-period sales of approximately \$135,379,333.

2. The rate of return and TIER granted herein is fair, just, and reasonable and will provide for the financial obligations of Green River.

3. The rates proposed by Green River 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:

1. The rates in Appendix A be, and they hereby are, approved for service rendered by Green River on and after January 1, 1989.

2. The rates proposed by Green River be, and they hereby are, denied.


3. Within 30 days from the date of this Order, Green River shall file with this Commission its revised tariff sheets setting out the rates approved herein.

4. Green River's motion for leave to file a reply brief be, and it hereby is, denied.

Done at Frankfort, Kentucky, this 27th day of December, 1988.

PUBLIC SERVICE COMMISSION

\_\_\_\_\_  
Chairman

  
\_\_\_\_\_  
Vice Chairman

  
\_\_\_\_\_  
Commissioner

ATTEST:

\_\_\_\_\_  
Executive Director

APPENDIX A

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE  
COMMISSION IN CASE NO. 10275 DATED December 27, 1988.

The following rates and charges are prescribed for the customers in the area served by Green River Electric Corporation. 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.

RESIDENTIAL SERVICE

Monthly Rate:

Customer Charge	\$7.30
First 600 KWH per KWH	6.5300¢
Next 400 KWH per KWH	5.6958¢
All Over 1,000 KWH per KWH	4.9800¢

Minimum Charge:

The minimum monthly charge shall be the applicable customer charge.

THREE-PHASE DEMAND - COMMERCIAL, LARGE POWER  
AND PUBLIC BUILDINGS LESS THAN 1,000 KW

APPLICABLE

Service area in Daviess, Hancock, Hopkins, McLean, Ohio, Henderson, Webster, Breckinridge and Muhlenberg Counties.

AVAILABILITY OF SERVICE

Available to consumers served by Green River located on or near its three-phase lines who contract for less than 1,000 KW of demand.

Monthly Rate:

Customer Charge	\$20.00
Plus Demand Charge of:	
Per KW of Billing Demand	\$5.25

Plus Energy Charges of:

First 200 KWH Per KW, Per KWH	5.0000¢
Next 200 KWH Per KW, Per KWH	4.5000¢
All Over 400 KWH Per KW, Per KWH	4.2800¢

DETERMINATION OF BILLING DEMAND

The billing demand shall be the maximum kilowatt load used by the consumer for any period of 15 consecutive minutes during the month for which the bill is rendered as indicated or recorded by a demand meter.

POWER FACTOR ADJUSTMENT

The consumer agrees to maintain unity power factor as near as practical. The Company will permit the use of apparatus which shall result, during normal operation, in a power factor not lower than 90 percent.

Where the customer's power factor is less than 90 percent, the Company reserves the right to require the customer, at the customer's own expense, to furnish suitable corrective equipment to maintain a power factor of 90 percent or higher. At the Company's option, in lieu of the customers providing the above corrective equipment, when power factor is less than 90 percent, the Company may adjust the maximum measured demand for billing purposes in accordance with the following formula:

$$\frac{\text{Max. Measured KW} \times 90\%}{\text{Power Factor} (\%)}$$

The power factor shall be measured at time of maximum load.

PRIMARY SERVICE

The above rate is based on service provided at the seller's secondary distribution voltage. If service is furnished at the seller's primary distribution voltage, the demand and energy charges, excluding the amount calculated in accordance with the fuel adjustment provision, shall be decreased by 5 percent.

MINIMUM MONTHLY CHARGE

The minimum monthly charge shall be in accordance with investment to serve and as mutually agreed to by both parties.

### FUEL ADJUSTMENT CHARGE

The energy charge in any month shall be increased or decreased by a fuel adjustment charge according to the following formula:

$$\frac{F^1}{P} = \text{rate applicable to each KWH sold}$$

Where  $F^1$  is the aggregate charge from the Corporation's wholesale power supplier for fuel adjustment less any credit for intersystem power sales, in the Corporation's wholesale power contract; where P is the total KWH purchased, less line losses equal to a 12-month moving average not to exceed 10 percent. The rate resulting from this formula shall be applied to each kilowatt hour sold in the current month and each KWH attributable to Company use in the current month.

### TAXES

There shall be added to each applicable customer's bill the Kentucky Sales Tax (KRS 139.210). There shall also be added to each applicable customer's bill the Utility Gross Receipts License Tax for Schools (KRS 160.617).

### THREE-PHASE DEMAND - LARGE POWER 1,000 KW AND ABOVE

#### APPLICABLE

Service area in Daviess, Hancock, Hopkins, McLean, Ohio, Henderson, Webster, Breckinridge and Muhlenberg Counties.

#### AVAILABILITY OF SERVICE

Available to consumers served by Green River located on or near its three-phase lines for service at standard distribution voltages and with either a contract demand that equals or exceeds 1,000 KW or whenever the metered demand equals or exceeds 1,000 KW in any of the preceding 12 months.

#### Monthly Rate:

Customer Charge	\$100.00
Plus Demand Charge of:	
Per KW of Billing Demand	\$9.25
Plus Energy Charges of:	
First 200 KWH Per KW, Per KWH	4.0300¢
Next 200 KWH Per KW, Per KWH	3.6000¢
All Over 400 KWH Per KW, Per KWH	3.1000¢

#### DETERMINATION OF BILLING DEMAND

The billing demand shall be based on the highest 15-minute KW measurements during the current month and the preceding 11 months. The billing demand shall be the greater of, (1) 75 percent of the current month demand, or (2) 95 percent of the actual demand occurring in the applicable month in which the current peak billing demand of the wholesale delivery point, from which the Corporation's consumer is serviced, was established.

#### POWER FACTOR ADJUSTMENT

The consumer agrees to maintain unity power factor as near as practical. The Company will permit the use of apparatus which shall result, during normal operation, in a power factor not lower than 90 percent.

Where the customer's power factor is less than 90 percent, the Company reserves the right to require the customer, at the customer's own expense, to furnish suitable corrective equipment to maintain a power factor of 90 percent or higher. At the Company's option, in lieu of the customers providing the above corrective equipment, when power factor is less than 90 percent, the Company may adjust the maximum measured demand for billing purposes in accordance with the following formula:

$$\frac{\text{Max. Measured KW} \times 90\%}{\text{Power Factor} (\%)}$$

The power factor shall be measured at time of maximum load.

#### SERVICE VOLTAGE

The above rate is based on service provided at the seller's primary distribution voltage. If service is furnished at the seller's secondary distribution voltage, the demand and energy charges specified in the above rate schedule, excluding the customer charge and the amount calculated in accordance with the fuel adjustment provision, shall be increased by 5 percent. If the seller, at its option, meters the service at the secondary distribution voltage, metered demand and energy will be adjusted for billing purposes to the primary voltage by adding estimated transformer losses to the amounts metered.

#### MINIMUM MONTHLY CHARGE

The minimum monthly charge shall be in accordance with investment to serve and as mutually agreed to by both parties.



### FUEL ADJUSTMENT CHARGE

The energy charge in any month shall be increased or decreased by a fuel adjustment charge according to the following formula:

$$\frac{F^1}{P} = \text{rate applicable to each KWH sold}$$

Where  $F^1$  is the aggregate charge from the Company's wholesale power supplier for fuel adjustment less any credit for intersystem power sales, in the Corporation's wholesale power contract; where P is the total KWH purchased, less line losses equal to a 12-month moving average not to exceed 10 percent. The rate resulting from this formula shall be applied to each kilowatt hour sold in the current month and each KWH attributable to Company use in the current month.

### TAXES

There shall be added to each applicable customer's bill the Kentucky Sales Tax (KRS 139.210). There shall also be added to each applicable customer's bill the Utility Gross Receipts License Tax for Schools (KRS 160.617).

### STREET AND INDIVIDUAL CONSUMER LIGHTING

#### Monthly Rate:

175 Watt Mercury Vapor Lamps: Per Lamp Per Month	\$7.81
250 Watt Mercury Vapor Lamps: Per Lamp Per Month	\$9.07
400 Watt Mercury Vapor Lamps: Per Lamp Per Month	\$10.77
100 Watt High Pressure Sodium Lamps: Per Lamp Per Month	\$7.81
250 Watt High Pressure Sodium Lamps: Per Lamp Per Month	\$10.77

### UNDERGROUND SERVICE WITH NON-STANDARD POLE

For service to governmental authorities with underground service on aluminum or fiberglass poles, an additional charge of \$4.45 per month per pole will be added to the standard charges for street lighting.

COMMONWEALTH ALUMINUM, INC., AND WILLAMETTE  
INDUSTRIES, INC., (WESTERN KRAFT PAPER GROUP/  
KENTUCKY MILLS DIVISION)

Demand Charge of: \$8.80  
per KW of billing demand\*

Plus Energy Charge of: 1.8055¢  
per KWH consumed

ALUMAX ALUMINUM

Demand Charge of: \$9.05  
per KW of billing demand\*

Plus Energy Charge of: 1.8755¢  
per KWH consumed

GREEN RIVER COAL COMPANY AND  
SOUTHWIRE COMPANY

Demand Charge of: \$9.05  
per KW of billing demand\*

Plus Energy Charge of: 2.0255¢  
per KWH consumed

ROSE BROTHERS TRUCKING COMPANY

Demand Charge of: \$9.05  
per KW of billing demand\*

Plus Energy Charge of: 4.5513¢  
per KWH consumed

\*Billing demand for purposes of this tariff shall be the contractual billing demand in the current billing month or the highest contractual billing demand in any of the previous eleven (11) billing months, whichever is greater.

NATIONAL-SOUTHWIRE ALUMINUM

The rates to National-Southwire Aluminum Company shall be the Variable Aluminum Smelter Power Rate contained in the tariff of Big Rivers, attached herein, plus \$.00008 per kilowatt hour per month.

VARIABLE ALUMINUM SMELTER POWER RATE

SECTION III - RATE

A. Initial Rate Charges Subject to Rate Case Adjustments

The following rates shall apply to sales for resale to primary aluminum smelter customers that purchase power under the Variable Smelter Power Rate Schedule.

1. Base Variable Aluminum Smelter Rate

- a. Demand Charge \$8.80 per kilowatt  
of contract demand

CABLE TELEVISION ATTACHMENT TARIFF

RENTAL CHARGE

The yearly rental charges shall be as follows:

Two-party pole attachment	\$3.71
Three-party pole attachment	\$3.54
Two-party anchor attachment	\$3.57
Three-party anchor attachment	\$2.38