

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF BIG RIVERS ELECTRIC)
CORPORATION TO ASSESS A SURCHARGE)
UNDER KRS 278.183 TO RECOVER COSTS) CASE NO. 94-032
OF COMPLIANCE WITH ENVIRONMENTAL)
REQUIREMENTS OF THE CLEAN AIR ACT)

O R D E R

On February 28, 1994, Big Rivers Electric Corporation ("Big Rivers") filed an application, pursuant to KRS 278.183, for authority to establish an environmental surcharge to recover its costs of complying with the Clean Air Act Amendments of 1990 ("CAAA") and other environmental requirements applicable to coal facilities used to generate electricity. Big Rivers' application also seeks approval of amendments to its contract with the City of Henderson, Kentucky ("Henderson") and the Henderson Utility Commission ("Utility Commission"). Big Rivers' application for an environmental surcharge was originally filed on November 22, 1993 in Case No. 93-065.¹ The Commission granted Big Rivers' request to withdraw that application by Order dated February 22, 1994. Big Rivers refiled its application in the instant case. The Commission

¹ Case No. 93-065, City of Henderson, Kentucky, City of Henderson Utility Commission, and Big Rivers Electric Corporation Application for Certificate of Public Convenience and Necessity and to File Plan for Compliance with Clean Air Act and Impose Environmental Surcharge.

has incorporated by reference the records of Case Nos. 91-331,² 93-341,³ and 93-065 into the record of this case.

KRS 278.183(2) requires the Commission to: (1) consider and approve a compliance plan and rate surcharge if the Commission finds the plan and rate surcharge reasonable and cost-effective for compliance with the applicable environmental requirements of the CAAA and those federal, state, or local environmental requirements which apply to coal combustion wastes and by-products; (2) establish a reasonable return on compliance-related capital expenditures; and (3) approve the application of the surcharge.

The proposed surcharge is to be implemented in July 1995 with initial revenues generated in September 1995. Big Rivers estimates that during the first two years of the proposed surcharge, from September 1995 through August 1997, the monthly demand component of the surcharge will average 26.99 cents per billing kilowatt ("kW") and the energy component of the surcharge will average 0.038 cents per billing kilowatt-hour ("kWh"). During this period, Big Rivers estimates its monthly revenues from the surcharge to be approximately \$610,000.

The Commission granted motions for full intervention to the Attorney General's Utility and Rate Intervention Division ("AG"), the Kentucky Industrial Utility Customers ("KIUC"), Henderson, and

² Case No. 91-331, A Review Pursuant to 807 KAR 5:058 of the 1991 Integrated Resource Plan of Big Rivers Electric Corporation.

³ Case No. 93-341, A Review Pursuant to 807 KAR 5:058 of the 1993 Integrated Resource Plan of Big Rivers Electric Corporation.

the Utility Commission. A public hearing on this matter was held June 6-10, 1994, at the Commission's offices in Frankfort, Kentucky.

ENVIRONMENTAL COMPLIANCE PLAN

As required by KRS 278.183, Big Rivers filed, as part of its application, an environmental compliance plan consisting of numerous projects to comply with the CAAA and other environmental regulations applicable to coal combustion wastes and by-products. The CAAA require, inter alia, substantial reductions in emissions of sulfur dioxide ("SO₂") and nitrogen oxide ("NO_x") and continuous emissions monitoring. The vast majority of Big Rivers' estimated environmental expenditures are directly related to compliance with the CAAA. The largest of these compliance projects is the installation of a flue gas desulfurization system ("scrubber") at Henderson Municipal Electric Power and Light System's Station Two Power Plant ("Station Two").⁴ The few remaining environmental expenditures relate to other air quality, water, and waste management requirements.

Big Rivers' compliance plan includes the following actions:

1. Installation of continuous emission monitors at all units and low-NO_x burners at all Phase I units.
2. Installation of a scrubber at Station Two in 1995 and sharing some existing scrubber facilities with the Green Station.

⁴ Station Two is operated by Big Rivers for Henderson with Big Rivers being allocated all capacity above and beyond Henderson's needs. In 1993, Big Rivers' allocation was approximately 83 percent of Station Two's total capacity of 315 MW.

3. Switching the Coleman Station to a medium-sulfur coal of 2.6 lb. SO₂/MMBtu as of 1995.

4. Increasing the percentage of SO₂ removed by the existing scrubber at the Green Station and substituting Green into Phase I of the acid rain program.

5. Increasing the percentage of SO₂ removed by the existing scrubber at the Wilson Station beginning in 2000.

To describe and support its compliance planning efforts, Big Rivers has submitted or referenced several documents, including the "Acid Rain Compliance Study" filed with its 1991 Integrated Resource Plan in Case No. 91-331, the "Acid Rain Compliance Analysis" filed with its 1993 Integrated Resource Plan in Case No. 93-341, and the "Clean Air Act Amendments of 1990 - Compliance Plan Reassessment Report" dated November 19, 1993 ("Reassessment Report") filed in this case. This last report presents the results of Big Rivers' latest reassessment of "all significant assumptions and forecasts, and viable emissions removal options" in order to assure that its selected compliance plan is appropriate.⁵ According to Big Rivers, the Reassessment Report demonstrates that "Big Rivers' current compliance plan continues to be the most favorable strategy over the short- and long-term and this plan best fits the Company's decision criteria."⁶ Big Rivers further

⁵ Schultz/Spainhoward Direct Testimony, Exhibit DS-1 at 1.

⁶ Id.

contends that its compliance plan is "reasonable and cost-effective within the meaning of KRS 278.183."⁷

KIUC contends that Big Rivers' compliance analysis is flawed for several reasons. First, KIUC asserts that Big Rivers failed to consider alternatives to installing scrubbers at Station Two, especially switching to a lower sulfur coal at Station Two, at the time of the scrubber decision.⁸ Big Rivers asserts that it has considered options other than scrubbing from the outset of its compliance planning. In particular, Big Rivers states that its 1991 Integrated Resource Plan considered the relative cost of a large number of compliance options, including a "complete fuel switch to low-sulfur coal at Station Two and Coleman."⁹

Second, KIUC contends that Big Rivers overestimated scrubber capital costs for a 2000 in-service date, thereby favoring an earlier 1995 installation.¹⁰ Big Rivers states that the capital cost estimates used in the February 1993 acid rain compliance analysis filed with its 1993 Integrated Resource Plan were based upon the "best available information and its best judgment."¹¹

Third, KIUC states that the only fuel switching alternative considered by Big Rivers in the Reassessment Report was to burn 2.3 lb SO₂/MMBtu coal which would have required substantial capital

⁷ Big Rivers Initial Brief at 44.

⁸ KIUC Post-Hearing Brief at 32-33.

⁹ Big Rivers Reply Brief at 18.

¹⁰ KIUC Post-Hearing Brief at 38.

¹¹ Big Rivers Reply Brief at 15.

costs for new flue gas conditioning equipment.¹² KIUC asserts that a slightly higher sulfur coal (i.e., 2.6 lb. SO₂/MMBtu coal) would not require such investment and would have the same result as the 2.3 lb. SO₂/MMBtu coal. Big Rivers contends that the cost of 2.3 lb. SO₂/MMBtu coal is not significantly different than the cost of 2.6 lb. SO₂/MMBtu coal. Big Rivers stresses that KIUC's evidence shows that the sulfur premium between these coals will be low.¹³ Furthermore, Big Rivers states that its evaluation of 2.3 lb. SO₂/MMBtu coal at Station Two showed that switching to this type coal was not the least-cost compliance option.¹⁴

Fourth, KIUC contends that Big Rivers failed to perform a sensitivity analysis with respect to scrubber costs and operating costs.¹⁵ KIUC states that these costs appear to be underestimated, specifically arguing that Big Rivers' "capital costs may be significantly higher than projected based upon cost overruns already experienced at the scrubber" and "operating costs may be significantly higher than projected because of the underestimation of scrubber staff and materials costs."¹⁶ Big Rivers asserts that KIUC's prediction regarding project cost overruns is an "extrapolation which is contrary to all evidence in

¹² KIUC Post-Hearing Brief at 55.

¹³ Big Rivers Reply Brief at 18.

¹⁴ Id. at 19.

¹⁵ KIUC Post-Hearing Brief at 57.

¹⁶ Id.

the record."¹⁷ Big Rivers maintains that "all credible evidence shows that the scrubber capital cost included in the Big Rivers studies is accurate."¹⁸ Regarding KIUC's criticisms of its projected operating and maintenance ("O&M") costs, Big Rivers contends that its projected staffing requirements are based upon "extensive experience with scrubber staffing and the staffing benefits which flow from sharing facilities."¹⁹ Furthermore, Big Rivers states that its projected annual maintenance materials expense was even higher than that recommended by KIUC.²⁰

Finally, KIUC contends that the coal price forecast used by Big Rivers in the Reassessment Report was flawed.²¹ Specifically, KIUC criticizes 1) the basis of Big Rivers' 20-year coal price estimate, 2) Big Rivers' failure to use a new barge rate in its coal price estimates, and 3) the sulfur premium used by Big Rivers' in its analyses. Big Rivers asserts that the new barge rate would neither diminish nor undermine its coal price evidence. Furthermore, Big Rivers notes that since transportation costs would be applicable to both high-sulfur and low-sulfur coal purchases, it is unlikely that its sulfur premium would be significantly affected.²² Big Rivers contends that two independent coal studies

¹⁷ Big Rivers Initial Brief at 26.

¹⁸ Id. at 28.

¹⁹ Id.

²⁰ Id. at 30.

²¹ KIUC Post-Hearing Brief at 60.

²² Big Rivers Reply Brief at 10.

that incorporate the new barge rate show even larger sulfur premiums than it predicted.²³

The AG contends that the Station Two scrubber is not needed to meet Big Rivers' CAAA compliance responsibilities. The AG claims that Big Rivers' proposed compliance plan and surcharge is an elaborate scheme to get more money from native load customers to increase debt repayments to the Rural Electrification Administration ("REA"), without presenting a general rate case.²⁴ Big Rivers rejects the suggestion that REA favored Big Rivers' decision to scrub Station Two as a means to obtain faster repayment of Big Rivers debt.²⁵

The Commission is not engaged in a prudence review of Big Rivers' February 1993 decision based on the information available at that time. Pursuant to KRS 278.183, the Commission is engaged in a review of Big Rivers' environmental compliance plan to determine whether it is currently reasonable and cost-effective. As such, the review is based only on the evidence of this record. In short, the Commission is making its decision based on the information available in August 1994, not what was available eighteen months prior to this decision.

Based on differing assumptions and scenarios, the analyses show an economic benefit under either a scrubbing or fuel switching strategy. For all scenarios analyzed by either Big Rivers or KIUC,

²³ Id.

²⁴ AG Brief at 5.

²⁵ Big Rivers Reply Brief at 36-38.

the differences in the costs of the scrubber and fuel-switch options are two percent or less of the present value of revenue requirements ("PVRR") for the applicable planning horizon. For most of the scenarios analyzed, however, the differences in the costs of these two options are well below one percent of the PVRR. With widely differing assumptions producing such similar results, the record reflects no clear advantage for either scrubbing or fuel switching. KIUC challenged several of Big Rivers' assumptions, most notably scrubber capital costs, scrubber O&M costs, and sulfur premiums; however, it neither refuted those assumptions nor showed them to be unreasonable. Big Rivers effectively rebutted KIUC's claims of scrubber cost overruns and its projections of additional scrubber operating staff. Regarding sulfur premiums, Big Rivers' rebuttal is somewhat less persuasive, but it at least attempted to support its fuel cost projections. KIUC provided no support for the sulfur premium included in its analyses of alternative compliance strategies.

Under KRB 270.183, the Commission is charged with determining if a utility's compliance plan is reasonable and cost-effective.²⁶ The evidence supports a finding that several alternative plans (i.e., scrubbing in 1995, fuel switching in 1995 then scrubbing in 2000, or a complete fuel switch with no scrubbing) could be judged

²⁶ KIUC contends that Big Rivers' "smelter rate" tariffs impose a standard of "prudent and least cost." KIUC Post-Hearing Brief at 23-26. While the statute obviously supersedes the tariffs, the Commission notes that KIUC has failed to demonstrate that Big Rivers' plan is neither prudent nor least cost.

to be reasonable and cost-effective. In the final analysis, no one plan is superior to the others. Big Rivers' chosen plan is but one of several plans that meet the statutory criteria of being reasonable and cost-effective. Therefore, pursuant to the statute, Big Rivers' environmental compliance plan should be approved.

SURCHARGE MECHANISM AND CALCULATION

Big Rivers proposes to recover the costs of its environmental compliance plan through a surcharge mechanism defined in its proposed Environmental Surcharge Tariff. Big Rivers states that its surcharge mechanism was modeled on the Commission's Fuel Adjustment Clause ("FAC") and that it does not plan to activate the surcharge before July 1995.²⁷

KRS 278.183 provides that a utility may recover those environmental compliance costs that are not already included in existing rates through an environmental surcharge. Big Rivers determined that the level of environmental compliance-related capital costs, O&M expenses, and administrative and general expenses reflected in its financial statements for the 12-month period ending December 31, 1992 were already included in its existing rates.²⁸ It identified this 12-month period as its base period, and proposed to compare the current period actual costs to the base period for both demand and energy components to determine the amount to be recovered through the environmental surcharge. The current period costs, allocated to either demand or energy,

²⁷ Big Rivers Initial Brief at 55.

²⁸ West Direct Testimony at 9, 17, and 19.

reflect the current month's actual costs of environmental compliance divided by the appropriate billing unit. The base period costs, also allocated to demand or energy, reflect the environmental compliance costs included in base rates divided by the appropriate billing unit. The current period cost per billing unit less the corresponding base period cost per billing unit determines the surcharge for both demand and energy. The current period costs would include adjustments for over- or under-recoveries of the surcharge.

In addition, Big Rivers proposes to return the \$22.9 million net proceeds from the 1993 sale of 154,384 emission allowances to ratepayers by partially offsetting the book cost of the Station Two scrubber and amortizing the proceeds to income.²⁹ It proposes to reflect the future sale of allowances in the energy component of the surcharge, amortizing gains or losses based on the vintage year the sold allowances were first available for use. Big Rivers suggests that the 6-month and 2-year reviews required by KRS 278.183 be handled in a manner similar to those used for the FAC.

KIUC contends that Big Rivers' surcharge is unacceptable. As an alternative, it has presented an incentive surcharge, which it claims would encourage Big Rivers to minimize its environmental compliance costs and allow Big Rivers to keep any savings realized by installing the scrubber.³⁰ A detailed surcharge proposal was provided after the public hearing in response to a Big Rivers data

²⁹ Big Rivers Initial Brief at 56.

³⁰ Taylor Direct Testimony at 12.

request which KIUC was compelled to answer.³¹ KIUC's proposal has two categories of costs. The first includes one-time, up-front CAAA compliance activities such as the installation of low-NO_x burners and continuous emission monitors. The recovery of these costs would be included in the surcharge in a manner similar to that proposed by Big Rivers. The second category encompasses SO₂ emission reduction activities, including the incremental costs of switching Station Two to lower sulfur coal and purchasing additional allowances if necessary. Ratepayers would only pay the costs that would have been incurred had Station Two been switched to 2.6 lb. SO₂/MMBtu coal. These costs would be determined using market prices for 2.6 lb. SO₂/MMBtu coal and estimates of the amount of coal that would have been burned at Station Two. The ratepayers would neither pay for the scrubber nor receive any benefits created by SO₂ reduction.³²

KIUC believes that its alternative surcharge would minimize the potential for contentious proceedings during the 6-month and 2-year reviews. Although it states that the final details of the alternative surcharge would need to be negotiated with Big Rivers,³³ KIUC argues that if Big Rivers is correct that scrubbing Station Two is the least cost option, the alternative surcharge benefits Big Rivers; but if KIUC is correct that fuel switching is

³¹ Big Rivers May 2, 1994 Data Request, Item 75; Commission's Compel Orders dated June 2, 1994 and July 8, 1994.

³² KIUC Post-Hearing Brief at 80.

³³ Transcript of Evidence ("T.E."), Vol. V, June 10, 1994, at 273-277.

the least cost option, the ratepayers will not be harmed by Big Rivers' incorrect compliance decision.³⁴ Big Rivers challenged KIUC's alternative surcharge claiming that it was not permitted under KRS 278.183, was inequitable to Big Rivers and its ratepayers, and would be impossible to implement.³⁵

The AG did not file any direct testimony. He indicates that a creative approach is needed to ensure that customers only pay for those compliance costs for which they are responsible, while still allowing Big Rivers to recover its costs. The AG argues that none of the Station Two scrubber costs should be charged to ratepayers and that Big Rivers has not removed all environmental costs presently included in existing rates.³⁶ While not proposing a specific surcharge mechanism, he acknowledges that KIUC's proposal is appealing in theory, but notes practical problems in administering it. First, it will be difficult to estimate the cost of lower sulfur coal that was never bought or bid for Station Two. Second, the amount of Station Two power being sold on-system and off-system will have to be determined.³⁷ Big Rivers describes the AG's proposed exclusion of Station Two scrubber costs as inappropriate and based on faulty assumptions and calculations.³⁸

³⁴ KIUC Post-Hearing Brief at 79.

³⁵ Big Rivers Initial Brief at 72-77.

³⁶ Id. at 19.

³⁷ Id. at 9.

³⁸ Big Rivers Reply Brief at 29.

Henderson and the Utility Commission did not specifically address the surcharge proposals in their testimony or briefs.

Surcharge Approach

The Commission is presented with two opposing approaches for determining the eligible environmental costs which can be collected through a surcharge. Big Rivers' approach compares the environmental compliance costs incurred in a current period with similar costs contained in a defined base period. This comparison identifies the costs not already included in Big Rivers' existing rates, and which are thus eligible for collection through a surcharge. KIUC's approach focuses on determining environmental compliance costs which would have been incurred had Big Rivers adopted a fuel switching strategy for Station Two. KIUC's approach is silent on determining what environmental costs are not already included in existing rates.

Big Rivers' approach is a reasonable proposal which allows for recovery of those environmental costs not included in existing rates. In addition, the 12 months ending December 31, 1992 is a reasonable choice for a base period. The comparison of a recent financial period with a base period allows for the determination of what costs are not included in existing rates. This approach satisfies the requirements outlined in KRS 278.183.

KIUC's approach, on the other hand, conflicts with KRS 278.183. It does not allow for recovery of incurred costs, but instead permits recovery of costs based on the cost of fuel switching. The two are not necessarily the same.

Neither is KIUC's proposal reasonable. It is difficult to implement because it relies on ongoing speculation as to the cost of low sulfur coal. This mechanism amounts to a lottery whereby the ratepayers win if the cost of low sulfur coal is below Big Rivers' expectations, but lose if scrubbing costs are lower because they would not receive the benefits of the savings. More to the point, the KIUC proposal is unacceptable because there is no determination of what costs are already included in existing rates.

Qualifying Costs

Big Rivers proposes to compare its current monthly level of environmental compliance costs per billing unit to the base period environmental compliance costs per billing unit, with the incremental difference being the amount recovered through the surcharge. This method is patterned after the FAC and would work in a similar manner, except the cost would be broken down into demand and energy components. The determination of either the current or base period costs includes:

1. A debt service component on Big Rivers' undepreciated balance of environmental utility plant, construction work in progress, and inventories of lime, limestone, spare parts, materials, supplies, and emission allowances.
2. Depreciation or amortization of leasehold improvements, taxes, and insurance on environmental utility plant.
3. Environmental O&M expenses.
4. Environmental administrative and general expenses.

5. Value of emission allowances consumed and the amortization of gains or losses on the sale of allowances.

6. Compliance-related purchased power, where an environmental compliance charge is specifically identified in the cost and other pollution control activities allowed by KRS 278.183.³⁹

The Commission adopts the approach proposed by Big Rivers, with the following modifications. First, reflecting the Commission's decision concerning the surcharge allocation, discussed later in this Order, current and base period environmental costs will not be allocated between demand and energy components. A surcharge factor will be calculated by taking the difference between the total monthly environmental compliance costs for the current and base periods, and dividing the result by total company revenues in the corresponding period. Second, KRS 278.183(4) requires that the cost of any consultant employed by the Commission to assist in reviewing a utility's compliance plan be included in the surcharge. Therefore, this cost should be included in the determination of the current period environmental costs for the first month the surcharge is calculated. Third, the proceeds from the Environmental Protection Agency's withheld allowance auctions should be returned to ratepayers in the same manner Big Rivers has proposed for other future allowance sales. Fourth, any proceeds received by Big Rivers from the sale of scrubber by-products should be included as a cost offset in the month the

³⁹ West Direct Testimony at 4.

proceeds are received. Fifth, the ending inventory of emission allowances should be valued using the weighted average cost method required by the REA and the Federal Energy Regulatory Commission ("FERC"). The emission allowance expense, as defined in Account No. 509 by REA and FERC, should be included in the determination of the current period environmental costs. Finally, the accounting and surcharge treatments proposed by Big Rivers for the \$22.9 million net proceeds from the 1993 emission allowance sale are rejected. The required accounting and surcharge treatments are described later in this Order.

Big Rivers identified the accounts and subaccounts it proposed to include as part of the base period environmental O&M expenses.⁴⁰ This listing is generally acceptable. Appendix A of this Order provides a complete listing of the accounts and subaccounts to be included in both the base and current periods' O&M expenses. No account or subaccount may be added or deleted without prior Commission approval.

The Commission expects the actual scrubber costs and expenses to be in line with Big Rivers' estimates. Failure to document and justify any overruns could result in disallowances to be determined at the 6-month or 2-year reviews.

Both KIUC and the AG have suggested that Big Rivers' Board of Directors violated KRS 279.140 when it authorized the sale of emission allowances without notice to and approval by its

⁴⁰ Response to Item 86(b) of the Commission's January 14, 1994 Order.

membership.⁴¹ The Commission finds no merit to KIUC's and the AG's argument.

Big Rivers' allowance transfer and sale activities demonstrate the need for a management strategy for allowances. Big Rivers should consider developing an emission allowance management strategy which addresses, among other things, Big Rivers' objectives for purchasing and selling allowances, the role of emission allowances in its compliance strategy, and its forecasts of emission allowance prices. Appendix A to the Commission's July 19, 1994 Order in Case No. 93-465⁴² demonstrates the areas to be addressed to develop an acceptable strategy in a similar case.

Accounting and Surcharge Treatment for 1993 Emissions Sale

In 1993, Big Rivers financed a portion of the Station Two scrubber with the net proceeds from the sale of 154,384 base allowances, approximately \$22.9 million. Big Rivers proposed to reflect these proceeds in its surcharge calculations by reducing the original book cost of the scrubber by \$12.9 million and amortizing the remaining \$10.0 million to income based on the vintage years of the allowances sold.⁴³ This income would offset environmental costs included in the surcharge calculation. Big Rivers indicated that it had requested REA approval for the

⁴¹ KIUC Post-Hearing Brief at 76 and AG Brief at 2.

⁴² Case No. 93-465, The Application of Kentucky Utilities Company to Assess a Surcharge Under KRS 278.183 to Recover Costs of Compliance With Environmental Requirements for Coal Combustion Wastes and By-Products.

⁴³ West Direct Testimony at 6.

treatment of the \$12.9 million portion of the proceeds,⁴⁴ but as of the hearing date it had not received a response.⁴⁵ REA subsequently rejected this proposal and indicated the final accounting treatment would be dependent on the Commission's regulatory determinations.⁴⁶ Big Rivers therefore has requested Commission approval of the original proposal.⁴⁷

The Commission finds that this request should be denied. The Uniform System of Accounts ("USoA") does not provide for crediting gains from allowance sales to the plant accounts which may have in part generated the allowances. Further, it is inappropriate to net the \$12.9 million proceeds against plant, returning the income to ratepayers over the life of the scrubber. Rather, the proceeds should be credited against environmental costs over the vintage years of the allowances sold. The sold allowances were for the vintage years 1995 through 1999. Therefore, Big Rivers should record the entries necessary to account for the \$22.9 million net proceeds in Account No. 254, Other Regulatory Liabilities. It should use a separate subaccount of Account No. 254 for specific identification purposes. Beginning with the first month the surcharge is applied, Big Rivers should amortize the proceeds to

⁴⁴ Response to Item 82 of the Commission's January 14, 1994 Order and Response to Item 47 of the Commission's March 21, 1994 Order.

⁴⁵ T.E., Vol. IV, June 9, 1994, at 158-159.

⁴⁶ Response by Big Rivers to Hearing Requests filed July 18, 1994, REA Letter to Big Rivers dated June 22, 1994.

⁴⁷ Big Rivers Initial Brief at 57.

Account No. 411.8, Gains from Disposition of Allowances. The amortization period should match the vintage years of the allowances sold in 1993. As emission allowances represent a permit to emit SO₂ in specific time periods, using vintage year for amortization purposes will more closely match the periods in which the allowances could have benefit to Big Rivers and its ratepayers. This method will also refund the proceeds in the same manner in which they will be charged to income under the USOA, thereby achieving a consistent accounting treatment. The amortization should be performed monthly and because it will begin in July 1995, the 1995 vintage year sale proceeds should be amortized over 6 months instead of 12.

While Big Rivers did propose a means to return the benefits of the allowance sale to its ratepayers, it has enjoyed this \$22.9 million benefit since the Fall of 1993 and will continue to do so until the surcharge begins in July 1995. Therefore, Big Rivers should accrue a carrying charge on the unrefunded portion of the \$22.9 million net proceeds from the date of this Order and until the full \$22.9 million has been amortized to Account No. 411.8. From the date of this Order until July 1995, the carrying charge should be a fixed rate equal to Big Rivers' weighted average cost of debt as of the Order date. From July 1995 until the \$22.9 million has been fully amortized to Account No. 411.8, the carrying charge should be the rate of return used in computing the surcharge. This carrying charge will be added to the balance of

the \$22.9 million and returned to ratepayers in subsequent surcharge calculations.

The unamortized balance in Account No. 254 related to the 1993 allowance sale and the related monthly amortization should be treated as offsets in the calculation of the current period environmental costs. Big Rivers should reduce the current period environmental rate base by the unamortized balance of Account No. 254 to calculate the debt service component. The monthly amortization to Account No. 411.8 should reduce current period costs. In this manner, the proceeds will be equitably returned to Big Rivers' ratepayers, consistent with proper USoA accounting. The accrued carrying charge should also be returned to ratepayers by reducing current period costs. The amortization and return to ratepayers should be completed by the end of 1999.

Review and Audit Process

Big Rivers states that operation of the surcharge should be similar to the FAC, and proposes reporting formats for the monthly calculation based on that clause. Because of the modifications made to Big Rivers' proposal, these formats have also been revised and are attached to this Order as Appendix B, which includes formats for information to be filed at the time of the 6-month and 2-year reviews. The monthly formats should be filed when Big Rivers submits the amount of the monthly surcharge. As experience is gained in the monthly reporting and review processes, the Commission may modify these formats or prescribe additional formats. A form to be prepared by Big Rivers when it proposes to

include a new capital investment in the surcharge has also been included. Any new capital investment proposed for inclusion in the surcharge will undergo prior Commission review.

In addition to the 6-month and 2-year formal reviews, the Commission will have its Staff perform on-site audits of the surcharge as necessary. Over- and under-recoveries of the surcharge, which would result from differences in the surcharge actually billed and the revenues collected, will be determined at the 6-month reviews. Over- or under-recoveries will be refunded or collected over the next 6-month period through an adjustment to the surcharge factor.

Formula to Calculate the Surcharge Factor

The Environmental Surcharge Gross Revenue Requirement, $E(m)$, will be equal to the difference between the average monthly base period and monthly current period environmental costs. The determination of the base period environmental costs is shown in Appendix B on ES Form 2.0. The determination of the current period environmental costs is shown in Appendix B on ES Form 3.0. The Environmental Surcharge Factor is calculated by dividing $E(m)$ by the Monthly Revenue for the Current Expense Month $R(m)$.

SURCHARGE ALLOCATION

Big Rivers proposes to allocate its environmental compliance costs into demand and energy components and apply surcharges to both its demand and energy rates. It proposes to calculate its environmental surcharge based on total sales, which include both

member sales to its cooperatives and non-member, or off-system, sales to other utilities.

KIUC recommends allocating environmental compliance costs based solely on energy (kWh) sales. KIUC argues that Big Rivers' proposal would cause member sales to bear a disproportionate share of compliance costs because it is heavily weighted toward demand costs and because such a large share of Big Rivers' off-system sales are economy energy sales which include no demand cost component. The AG agrees.

There is some degree of merit in proposals. However, when dealing with only one category of costs, namely environmental compliance costs, the Commission is not inclined to depart from the cost allocations reflected in existing rates unless there is compelling evidence to support such a departure. The parties did not present compelling arguments for departing from the allocation of costs reflected in Big Rivers' existing rates nor did they file cost-of-service studies to support their proposals.

A third method that will better maintain the cost allocations reflected in Big Rivers' existing rates should be used. The percentage-of-revenues method has been used in rate cases to achieve this end. Under this approach, the environmental compliance revenues would be divided by total revenues to calculate a percentage which would then be applied to bills to derive the surcharge amounts.

This method is also preferable because Big Rivers' non-member economy energy sales are large relative to its member sales. A

portion of these economy sales is made in lieu of the firm off-system sales envisioned in Big Rivers' debt restructuring plan and do not include the demand cost component firm sales would have included. Under Big Rivers' proposal these sales would be allocated no demand costs, while under KIUC's proposal they would be allocated demand costs as if they were firm sales. Given Big Rivers' level of economy energy sales, the percentage-of-revenues approach will result in the most equitable allocation of costs between member and non-member sales.

RATE OF RETURN

As part of its Environmental Surcharge Tariff, Big Rivers proposes to establish its rate of return as the weighted average cost of its outstanding debt. The return would be calculated monthly in determining the revenue requirement for the demand surcharge component. No other party suggested an alternative return and Big Rivers' proposal to base its return on its debt cost is reasonable. However, the rate should be fixed, as a monthly calculation would unnecessarily complicate the surcharge filings. The rate should be calculated initially when Big Rivers files its first monthly surcharge rate. Thereafter, the return should be reviewed and adjusted in the 6-month and 2-year cases.

Big Rivers is negotiating with REA to restructure its debt or otherwise obtain some interest reduction or debt forgiveness. In the event Big Rivers succeeds, it should notify the Commission of the results and reflect the results in its next monthly filing.

CONTRACT AMENDMENTS

Big Rivers and Henderson request that the Commission approve several amendments relating to their 1970 contract. Big Rivers states that the amendments incorporate changes recognizing the addition of scrubbers at Station Two and memorialize practices of the parties which have not previously been included in formal contract documents.⁴⁸ It claims the amendments are just and reasonable for it and its ratepayers.

KIUC argues that the terms and conditions of the amendments are neither reasonable nor prudent and should not be approved. KIUC states that the proposed modification to default provisions is unacceptable, that the amendments are economically flawed and of dubious value to Big Rivers, and that REA used the amendments to obtain additional remedies and payments on Big Rivers' outstanding debt.⁴⁹

Further review of the amendments is necessary. KRS 278.183(2)(a) requires that, within 6 months of submittal, the Commission must consider and approve the compliance plan and surcharge if it finds the plan and surcharge reasonable and cost-effective. The amendments are not an integral part of the compliance plan proposed by Big Rivers, and thus are not subject to the 6-month requirement. Therefore, the Commission will rule on them at a later date.

⁴⁸ Big Rivers Initial Brief at 4.

⁴⁹ KIUC Post-Hearing Brief at 65-75.

IT IS THEREFORE ORDERED that:

1. Big Rivers' compliance plan consisting of projects to meet federal, state and local environmental law and regulations is approved.

2. Big Rivers' Environmental Surcharge Tariff, as modified herein, is approved for service rendered on and after September 1, 1994.

3. Big Rivers' rate of return for the environmental surcharge shall be its weighted average cost of debt. The rate of return shall be determined at the filing of the first monthly surcharge and shall remain fixed during that 6-month period. It shall be reviewed and re-established during the 6-month review case.

4. In the event Big Rivers successfully renegotiates its debt with REA, Big Rivers shall notify the Commission of the renegotiation results within 10 days of its consummation. The effect of the renegotiation on Big Rivers weighted average cost of debt shall be reflected in its next monthly surcharge filing.

5. The reporting formats included in Appendix B shall be used, as specified, for each monthly filing, 6-month review, 2-year review, and new pollution control capital investment.

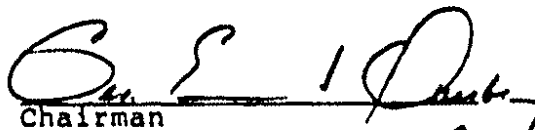
6. The accounting treatment requested by Big Rivers for its 1993 sale of emission allowances is denied. Big Rivers shall follow the accounting treatment described in this Order.


7. Big Rivers shall accrue and pay a carrying charge on the unamortized proceeds from its 1993 emissions allowance sale as prescribed in this Order.

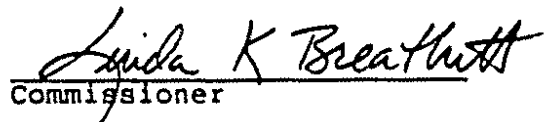
8. Within 30 days of the date of this Order, Big Rivers shall file with the Commission revised tariff sheets setting out the Environmental Surcharge Tariff as approved.

Done at Frankfort, Kentucky, this 31st day of August, 1994.

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. 94-032 DATED AUGUST 31, 1994.

SCHEDULE OF ACCOUNTS AND SUBACCOUNTS TO BE INCLUDED IN THE
CALCULATION OF BIG RIVERS' ENVIRONMENTAL SURCHARGE
Base Period Expense Accounts and Subaccounts

| Account | Account Title | Subaccounts |
|---------|---------------------------|---|
| 403 | Depreciation Expense | 110, 121, 131 & 141 |
| 408 | Taxes - Property | 111, 121, 141 & 181 |
| | Taxes - Fed. Unemployment | 210, 220, 240, 270 & 280 |
| | Taxes - FICA | 310, 320, 340 & 370 |
| | Taxes - St. Unemployment | 410, 420, 440, 470 & 480 |
| 500 | Oper. Supervision & Eng. | 100, 110, 200, 210, 300, 310, 400 & 410 |
| 502 | Steam Expenses | 100, 110, 200, 210, 300, 301, 310, 311, 320, 400, 401, 410, 411 & 420 |
| 505 | Electric Expenses | 310 & 410 |
| 506 | Misc. Steam Power Expense | 110, 210, 310 & 410 |
| 511 | Maintenance Structures | 110 & 310 |
| 512 | Maintenance Boiler Plant | 100, 110, 200, 210, 300, 301, 310, 311, 400, 401, 410 & 411 |
| 513 | Maint. Electric Plant | 410 |
| 514 | Maint. Misc. Steam Plant | 310 |
| 555 | Purchased Power HMP&L | 150 & 152 |
| 920 | Admin. & General Salaries | 100 |
| 921 | Office Supplies & Exp. | 100 |
| 923 | Outside Services Employed | 100 |
| 924 | Property Insurance | 111, 121, 141 & 181 |
| 925 | Injuries and Damages | 110, 120, 140, 170 & 180 |
| 926 | Emp. Pensions & Benefits | 110, 120, 140, 170 & 180 |

The Current Period Expense Accounts and Subaccounts will include all Base Period Accounts and Subaccounts, as well as Account No. 509, Allowances, the subaccount used to record the consultant costs, and accounts or subaccounts for leasehold amortization.

APPENDIX B

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION
IN CASE NO. 94-032 DATED AUGUST 31, 1994.

INDEX OF REPORTING FORMATS FOR BIG RIVERS ELECTRIC CORPORATION
ENVIRONMENTAL SURCHARGE
[Monthly, 6-Month Review, 2-Year Review, and Future Projects]

Monthly Reporting Formats:

| | |
|-------------|---|
| ES Form 1.0 | Calculation of E(m) and Environmental Surcharge Factor |
| ES Form 2.0 | Base Period Environmental Revenue Requirement |
| ES Form 2.1 | Base Period - Plant, Accumulated Depreciation, and CWIP |
| ES Form 2.2 | Base Period - Inventory of Lime, Limestone, Spare Parts, and Materials & Supplies |
| ES Form 2.3 | Base Period - Depreciation Expense, Insurance Expense, and Taxes Other Than Income |
| ES Form 2.4 | Base Period - Operation & Maintenance Expenses and Administrative & General Expenses |
| ES Form 3.0 | Current Period Environmental Revenue Requirement |
| ES Form 3.1 | Current Period - Plant, Accumulated Depreciation, and CWIP |
| ES Form 3.2 | Current Period - Inventory of Lime, Limestone, Spare Parts, and Materials & Supplies |
| ES Form 3.3 | Current Period - Inventory of Emission Allowances |
| ES Form 3.4 | Current Period - Depreciation Expense, Insurance Expense, and Taxes Other Than Income |
| ES Form 3.5 | Current Period - Operation & Maintenance Expenses and Administrative & General Expenses |
| ES Form 4.0 | Monthly Revenue Computation R(m) |

Six-Month and 2-Year Review Formats:

- ES Form 5.0 Recap of Billing Factors and Revenue
- ES Form 5.1 Recap of Environmental Debt Service Components
- ES Form 5.2 Recap of Pollution Control Operating Expenses
and Amortization of Allowance Sale Proceeds

Future Projects:

- ES Project New Pollution Control Capital Investments
[To be completed only when proposing an
additional capital investment for inclusion in
the surcharge.]

Note: All Monthly Reporting Formats (ES Form 1.0 through ES Form 4.0) are to be filed 10 days before each monthly environmental surcharge is scheduled to go into effect, with the exception of the Base Period Formats (ES Form 2.0 through ES Form 2.4), which are only required to be filed at the beginning of each 2-Year Review cycle.

**BIG RIVERS ELECTRIC CORPORATION - ENVIRONMENTAL SURCHARGE REPORT
 CALCULATION OF E(m) AND ENVIRONMENTAL SURCHARGE FACTOR
 For the Expense Month of _____**

CALCULATION OF E(m)

E(m) is the Monthly Environmental Surcharge Gross Revenue Requirement.

E(m) = Net Current Period Monthly Environmental Revenue Requirement minus Average Monthly Base Period Environmental Revenue Requirement

Net Current Period Monthly Environmental Revenue Requirement,
 from ES Form 3.0 \$

Average Monthly Base Period Environmental Revenue Requirement,
 from ES Form 2.0 \$

Monthly Environmental Surcharge Gross Revenue Requirements, E(m) \$

CALCULATION OF ENVIRONMENTAL SURCHARGE FACTOR

E(m): Monthly Environmental Surcharge Gross Revenue Requirement = \$

R(m): Monthly Revenue for the Current Expense Month = \$

Environmental Surcharge Factor: $E(m)/R(m)$ =
 (% of Revenue)

Effective Date for Billing: _____

Submitted By: _____

Title: _____

Date Submitted: _____

**BIG RIVERS ELECTRIC CORPORATION - ENVIRONMENTAL SURCHARGE REPORT
BASE PERIOD ENVIRONMENTAL REVENUE REQUIREMENT
For the 12 Months Ending December 31, 1992**

DETERMINATION OF DEBT SERVICE COMPONENT

| | | |
|---|----|----------|
| Eligible Pollution Control Plant | \$ | |
| Less: Accumulated Depreciation on Eligible Pollution Control Plant | \$ | |
| Net Eligible Pollution Control Plant | | \$ |
| Eligible Pollution Control CWIP | | \$ |
| Inventory - Lime | \$ | |
| Inventory - Limestone | \$ | |
| Inventory - Spare Parts | \$ | |
| Inventory - Materials & Supplies | \$ | |
| Inventory - Emission Allowances | \$ | |
| Total All Inventories | | \$ |
| Total Net Plant, CWIP, and Inventories | | \$ |
| Average Cost of Debt (Computed, based on 1992 Base Period Information) | | X † |
| Debt Service Component of Base Period Environmental Revenue Requirements | | \$ |

BASE PERIOD ENVIRONMENTAL REVENUE REQUIREMENTS

| | |
|--|----|
| Debt Service Component | \$ |
| Depreciation Expense on Eligible Plant | \$ |
| Insurance Expense on Eligible Plant | \$ |
| Taxes Other Than Income | \$ |
| Operation and Maintenance Expenses | \$ |
| Administrative and General Expenses | \$ |
| Total Base Period Environmental Revenue Requirements | \$ |
| Average Monthly Base Period Environmental Revenue Requirements (Total divided by 12) | \$ |

AVERAGE COST OF DEBT

| | |
|---|----|
| 1992 Calendar Year Actual Interest Expense | \$ |
| Long-Term Debt Outstanding, 01/01/92 | \$ |
| Add: Long-Term Debt Balance, 12/31/92 | \$ |
| Sum of Beginning and Ending Balances | \$ |
| Aver. 1992 Long-Term Debt Balances (Sum divided by 2) | \$ |
| 1992 Average Cost of Debt (Interest Exp./Av. Debt Bal.) | † |

**BIG RIVERS ELECTRIC CORPORATION - ENVIRONMENTAL SURCHARGE
 BASE PERIOD FINANCIAL INFORMATION
 PLANT, ACCUMULATED DEPRECIATION, AND CWIP
 For the 12 Months Ending December 31, 1992**

| Station/ Location of Eligible Plant | Project Description of Eligible Pollution Control Plant | Eligible Plant in Service Balance | Accumulated Depreciation on Eligible Plant in Service | Eligible Construction Work In Progress (CWIP) |
|---|--|--|---|---|
| | | \$ | \$ | \$ |
| | | | | |
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| | | | | |
| | | | | |
| | Totals for Plant, Accumulated Depreciation, and CWIP | \$ | \$ | \$ |

For the Base Period, list the balances for all eligible Pollution Control Utility Plant in Service, the associated Accumulated Depreciation, and CWIP as of December 31, 1992. Organize information first by station or location, then list utility plant in service before CWIP. Use only original booked costs and actual booked balances. Include as many pages of this form as needed to report Base Period balances, identifying these as "Page ___ of ___". The Base Period information will only need to be filed at the beginning of each 2-year cycle.

BIG RIVERS ELECTRIC CORPORATION - ENVIRONMENTAL SURCHARGE
BASE PERIOD FINANCIAL INFORMATION
INVENTORIES OF LIME, LIMESTONE, SPARE PARTS, AND MATERIALS & SUPPLIES
For the 12 Months Ending December 31, 1992

| Type of Inventory | Coleman | Green | Reid | Wilson | HMP&L Station Two |
|----------------------|---------|-------|------|--------|-------------------|
| Lime: | | | | | |
| Tons | | | | | |
| Dollars | \$ | \$ | \$ | \$ | \$ |
| \$/Ton | \$ | \$ | \$ | \$ | \$ |
| Limestone: | | | | | |
| Tons | | | | | |
| Dollars | \$ | \$ | \$ | \$ | \$ |
| \$/Ton | \$ | \$ | \$ | \$ | \$ |
| Spare Parts | \$ | \$ | \$ | \$ | \$ |
| Materials & Supplies | \$ | \$ | \$ | \$ | \$ |

Where applicable, provide the Base Period information for environmental compliance costs. Amounts are to be for the 12 months ending December 31, 1992. If the inventory type listed for a particular station is not applicable, mark as "NA." The Base Period information will only need to be filed at the beginning of each 2-year cycle.

**BIG RIVERS ELECTRIC CORPORATION - ENVIRONMENTAL SURCHARGE
 BASE PERIOD FINANCIAL INFORMATION
 DEPRECIATION EXPENSE, INSURANCE EXPENSE,
 AND TAXES OTHER THAN INCOME
 For the 12 Months Ending December 31, 1992**

| Account Number | Account Title, Subaccount Number and Title | Base Period Balance |
|----------------|---|------------------------|
| 403 | Depreciation Expense (List Applicable Subaccount Nos. and Titles) | \$ |
| | Total Depreciation Expense | \$ |
| | | |
| 408 | Taxes Other Than Income (List Applicable Subaccount Nos. and Titles) | \$ |
| | Total Taxes Other Than Income | \$ |
| | | |
| 924 | Insurance Expense (List Applicable Subaccount Nos. and Titles) | \$ |
| | Total Insurance Expense | \$ |

For the Base Period, list the balances for the appropriate accounts and subaccounts related to eligible pollution control capital expenditures. For each main account, list the applicable subaccount numbers and titles. Amounts are to be for the 12 months ending December 31, 1992. The Base Period information will only need to be filed at the beginning of each 2-year cycle.

**BIG RIVERS ELECTRIC CORPORATION - ENVIRONMENTAL SURCHARGE
BASE PERIOD FINANCIAL INFORMATION
OPERATION & MAINTENANCE EXPENSES AND
ADMINISTRATIVE & GENERAL EXPENSES
For the 12 Months Ending December 31, 1992**

| Account Number | Account Title, Subaccount Number and Title | Base Period Balance |
|--|--|------------------------|
| OPERATION AND MAINTENANCE EXPENSES (List Applicable Subaccount Nos. and Titles) | | |
| | Steam Power Generation - Operation: | |
| 500 | Operation Supervision and Engineering | 0 |
| 502 | Steam Expenses | 0 |
| 505 | Electric Expenses | 0 |
| 506 | Miscellaneous Steam Power Expenses | 0 |
| | Steam Power Generation - Maintenance: | |
| 511 | Maintenance of Structures | 0 |
| 512 | Maintenance of Boiler Plant | 0 |
| 513 | Maintenance of Electric Plant | 0 |
| 514 | Maintenance of Miscellaneous Steam Plant | 0 |
| | Other Power Supply Expenses: | |
| 555 | Purchased Power | 0 |
| | Total Operation and Maintenance Expenses | 0 |
| ADMINISTRATIVE AND GENERAL EXPENSES (List Applicable Subaccount Nos. and Titles) | | |
| 920 | Administrative and General Salaries | 0 |
| 921 | Office Supplies and Expenses | 0 |
| 923 | Outside Services Employed | 0 |
| 925 | Injuries and Damages | 0 |
| 926 | Employee Pensions and Benefits | 0 |
| | Total Administrative and General Expenses | 0 |

For the Base Period, list the balances for the appropriate accounts and subaccounts related to eligible pollution control capital expenditures. For each main account, list the applicable subaccount numbers and titles. Amounts are to be for the 12 months ending December 31, 1992. The Base Period information will only need to be filed at the beginning of each 2-year cycle. For Account No. 555, attach supporting documentation which demonstrates that this expense qualifies as an environmental compliance item.

**BIG RIVERS ELECTRIC CORPORATION - ENVIRONMENTAL SURCHARGE REPORT
CURRENT PERIOD ENVIRONMENTAL REVENUE REQUIREMENT
For the Expense Month of _____**

DETERMINATION OF DEBT SERVICE COMPONENT

| | | |
|--|----|----|
| Eligible Pollution Control Plant | \$ | |
| Less: Accumulated Depreciation on Eligible Pollution Control Plant | \$ | |
| Net Eligible Pollution Control Plant | \$ | |
| Less: Unamortized Balance of Account No. 254 Related to 1993 Sale of Allowances | \$ | |
| Adjusted Net Eligible Pollution Control Plant | | \$ |
| Eligible Pollution Control CWIP | | \$ |
| Inventory - Lime | \$ | |
| Inventory - Limestone | \$ | |
| Inventory - Spare Parts | \$ | |
| Inventory - Materials & Supplies | \$ | |
| Inventory - Emission Allowances | \$ | |
| Total All Inventories | | \$ |
| Total Adjusted Net Plant, CWIP, and Inventories | | \$ |
| Weighted Average Cost of Debt (Rate of Return Authorized for Surcharge Purposes) | | X |
| Debt Service Component of Current Period Environmental Revenue Requirements | | \$ |

CURRENT PERIOD MONTHLY ENVIRONMENTAL REVENUE REQUIREMENTS

| | |
|--|----|
| Debt Service Component | \$ |
| Monthly Depreciation Expense on Eligible Plant | \$ |
| Monthly Insurance Expense on Eligible Plant | \$ |
| Monthly Taxes Other Than Income | \$ |
| Monthly Operation and Maintenance Expenses | \$ |
| Monthly Administrative and General Expenses | \$ |
| Total Current Period Monthly Environmental Revenue Requirements | \$ |
| Less: Monthly Amortization - 1993 Sale Proceeds | \$ |
| Less: Monthly Amortization of Carrying Charge on Unamortized Balance for Acct. No. 254 - 1993 Sale | \$ |
| Less: Monthly Amortization of Additional Allowance Sales and Revenues from By-Product Sales | \$ |
| Net Current Period Monthly Environmental Revenue Requirements | \$ |

**BIG RIVERS ELECTRIC CORPORATION - ENVIRONMENTAL SURCHARGE
CURRENT PERIOD FINANCIAL INFORMATION
PLANT, ACCUMULATED DEPRECIATION, AND CWIP
For the Expense Month of _____**

| Station/ Location of Eligible Plant | Project Description of Eligible Pollution Control Plant [Include USoA Account No.] | Eligible Plant in Service Balance | Accumulated Depreciation on Eligible Plant in Service | Eligible Construction Work In Progress (CWIP) |
|---|--|--|---|---|
| | | \$ | \$ | \$ |
| | | | | |
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| | | | | |
| | Totals for Plant, Accumulated Depreciation, and CWIP | \$ | \$ | \$ |

For the Current Period, list the balances for all eligible Pollution Control Utility Plant in Service, the associated Accumulated Depreciation, and CWIP as of the end of the Expense Month. Organize information first by station or location, then list utility plant in service before CWIP. Use only original booked costs and actual booked balances. Include as many pages of this form as needed to report Current Period balances, identifying these as "Page ___ of ___"

**BIG RIVERS ELECTRIC CORPORATION - ENVIRONMENTAL SURCHARGE
CURRENT PERIOD FINANCIAL INFORMATION
INVENTORIES OF LIME, LIMESTONE, SPARE PARTS, AND MATERIALS & SUPPLIES
For the Expense Month of _____**

| Type of Inventory | Coleman | Green | Reid | Wilson | HMP&L Station Two |
|----------------------|---------|-------|------|--------|-------------------|
| Lime: | | | | | |
| Tons | | | | | |
| Dollars | \$ | \$ | \$ | \$ | \$ |
| \$/Ton | \$ | \$ | \$ | \$ | \$ |
| Limestone: | | | | | |
| Tons | | | | | |
| Dollars | \$ | \$ | \$ | \$ | \$ |
| \$/Ton | \$ | \$ | \$ | \$ | \$ |
| Spare Parts | \$ | \$ | \$ | \$ | \$ |
| Materials & Supplies | \$ | \$ | \$ | \$ | \$ |

Where applicable, provide the Current Period information for environmental compliance costs. Amounts are to be as of the end of the Expense Month. If the inventory type listed for a particular station is not applicable, mark as "NA."
Attach a separate worksheet providing a detailed analysis of the Spare Parts inventory shown for each Station.

BIG RIVERS ELECTRIC CORPORATION - ENVIRONMENTAL SURCHARGE REPORT
CURRENT PERIOD FINANCIAL INFORMATION - INVENTORY OF EMISSION ALLOWANCES
 For the Expense Month of _____

| | Beginning Inventory | Allocations/ Purchases | Utilized | Sold | Ending Inventory | Allocation, Purchase or Sale Date & Vintage Yrs. |
|--|-------------------------------|------------------------------|---------------------------|-----------------------------------|------------------|---|
| TOTAL EMISSION ALLOWANCES IN INVENTORY, ALL CLASSIFICATIONS: | | | | | | |
| Quantity | | | | | | |
| Dollars | | | | | | |
| \$/Allowance | | | | | | |
| ALLOCATED ALLOWANCES FROM EPA: | | | | | | |
| Quantity | | | | | | |
| ALLOWANCES FROM OVER-CONTROL (OVER-SCRUBBING): | | | | | | |
| Quantity | | | | | | |
| ALLOWANCES FROM PURCHASES: | | | | | | |
| Quantity | | | | | | |
| Dollars | | | | | | |
| \$/Allowance | | | | | | |
| Big Rivers is required to maintain adequate allowance records which will allow ready identification of the number of each classification of allowances included in Ending Inventory. | | | | | | |
| PROCEEDS FROM ALLOWANCE SALES DURING MONTH | | | | | | |
| | Allocated Allowances from EPA | Allowances from Over-Control | Allowances from Purchases | Proceeds from All Allowance Sales | | |
| Gross Proceeds | \$ | \$ | \$ | \$ | | |
| Sales Expenses | \$ | \$ | \$ | \$ | | |
| Net Proceeds | \$ | \$ | \$ | \$ | | |
| Big Rivers shall attach detailed information related to the Sales Expenses deducted from Gross Proceeds. | | | | | | |

**BIG RIVERS ELECTRIC CORPORATION - ENVIRONMENTAL SURCHARGE
CURRENT PERIOD FINANCIAL INFORMATION
DEPRECIATION EXPENSE, INSURANCE EXPENSE,
AND TAXES OTHER THAN INCOME
For the Expense Month of _____**

| Account Number | Account Title, Subaccount Number and Title | Current Period Balance |
|----------------|---|---------------------------|
| 403 | Depreciation Expense (List Applicable Subaccount Nos. and Titles) | \$ |
| | Total Depreciation Expense | \$ |
| 408 | Taxes Other Than Income (List Applicable Subaccount Nos. and Titles) | \$ |
| | Total Taxes Other Than Income | \$ |
| 924 | Insurance Expense (List Applicable Subaccount Nos. and Titles) | \$ |
| | Total Insurance Expense | \$ |

For the Current Period, list the balances for the appropriate accounts and subaccounts related to eligible pollution control capital expenditures. For each main account, list the applicable subaccount numbers and titles. Amounts are to be for the Expense Month only.

**BIG RIVERS ELECTRIC CORPORATION - ENVIRONMENTAL SURCHARGE
CURRENT PERIOD FINANCIAL INFORMATION - OPERATION & MAINTENANCE
EXPENSES AND ADMINISTRATIVE & GENERAL EXPENSES
For the Expense Month of _____**

| Account Number | Account Title, Subaccount Number and Title | Current Period Balance |
|---|--|---------------------------|
| OPERATION AND MAINTENANCE EXPENSES (List Applicable Subaccount Nos. and Titles) | | |
| | Steam Power Generation - Operation: | |
| 500 | Operation Supervision and Engineering | \$ |
| 502 | Steam Expenses | \$ |
| 505 | Electric Expenses | \$ |
| 506 | Miscellaneous Steam Power Expenses | \$ |
| 509 | Emission Allowances | \$ |
| | Steam Power Generation - Maintenance: | |
| 511 | Maintenance of Structures | \$ |
| 512 | Maintenance of Boiler Plant | \$ |
| 513 | Maintenance of Electric Plant | \$ |
| 514 | Maintenance of Miscellaneous Steam Plant | \$ |
| | Other Power Supply Expenses: | |
| 555 | Purchased Power | \$ |
| | Total Operation and Maintenance Expenses | \$ |
| ADMINISTRATIVE AND GENERAL EXPENSES (List Applicable Subaccount Nos. and Titles) | | |
| 920 | Administrative and General Salaries | \$ |
| 921 | Office Supplies and Expenses | \$ |
| 923 | Outside Services Employed | \$ |
| 925 | Injuries and Damages | \$ |
| 926 | Employee Pensions and Benefits | \$ |
| 928 | Regulatory Commission Exp. - Consultant Fees | \$ |
| | Total Administrative and General Expenses | \$ |

For the Current Period, list the balances for the appropriate accounts and subaccounts related to eligible pollution control capital expenditures. For each main account, list the applicable subaccount numbers and titles. Amounts are to be for the Expense Month only.

For Account No. 555, attach supporting documentation which demonstrates that this expense qualifies as an environmental compliance item.

BIG RIVERS ELECTRIC CORPORATION - ENVIRONMENTAL SURCHARGE REPORT
MONTHLY REVENUE COMPUTATION R(m)
 For the Expense Month of _____

| COMPUTATION OF R(m) | | | |
|---|----|----|----|
| Member Sales: | | | |
| Base Revenues | \$ | | |
| Fuel Clause Revenues | \$ | | |
| Environmental Surcharge | \$ | | |
| Total Member Sales | | \$ | |
| Total Member Sales Excluding Environmental Surcharge | | | \$ |
| Total Non-Member Sales | | \$ | |
| Total Company Revenue (Member and Non-Member Sales) | | | \$ |
| Total Company Revenue Excluding Environmental Surcharge - R(m) | | | \$ |

R(m) represents the total company revenue (Member and Non-Member Sales) excluding Environmental Surcharge Revenues.

**BIG RIVERS ELECTRIC CORPORATION - ENVIRONMENTAL SURCHARGE
SIX MONTH AND TWO YEAR REVIEW
RECAP OF BILLING FACTORS AND REVENUE**

For the Period _____ through _____

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|-----------------------|--|--|-----------------------------------|--|---|-------------------------------------|---|
| Current Expense Month | E(m) Gross Environ. Surcharge Revenue Requirement [Note 1] | Total Company Revenue [Incl. FAC Excl. ES] | Environ. Surcharge Billing Factor | Net Six Month & Environ. Surcharge Billing Factor [Note 2] | Member Sales Revenue [Incl. FAC Excl. ES] | Environ. Surcharge Revenue [Note 3] | Member Sales Over/(Under) Collection [Note 4] |
| | | | | | | | |
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For each Expense Month included in the 6 Month Review Period, list the appropriate billing factors and revenues. At the 2 Year Review, provide this information for the entire review period. Do Not Include Base Period information on this schedule.

FAC is Fuel Adjustment Clause; ES is Environmental Surcharge.

Note 1: E(m) = Net Current Period Monthly Environmental Revenue Requirement minus Average Monthly Base Period Environmental Revenue Requirement

Note 2: Net of the month's Environmental Surcharge Factor and the appropriate Over/(Under) Collection adjustment. Show the calculation of the Over/(Under) Collection adjustment on a separately attached worksheet.

Note 3: Column 5 times Column 6

Note 4: Show the calculation of the Over/(Under) Collection amount on a separately attached worksheet.

**BIG RIVERS ELECTRIC CORPORATION - ENVIRONMENTAL SURCHARGE
SIX MONTH AND TWO YEAR REVIEW
RECAP OF ENVIRONMENTAL DEBT SERVICE COMPONENTS
For the Period _____ through _____**

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
|-----------------------------|---|--|--|--|--------------------------|---|-----------------------------|--|
| | | | Deductions | | Inventories | | | |
| Current Expense Month | Eligible Pollution Control Plant | Eligible Pollution Control CWIP | Accum. Deprec. on Eligible Pollution Control Plant | Unamort. Bal. of Account No. 254 - 1993 Allowance Sale | Lime and Limestone | Spare Parts and Materials & Supplies | Emission Allow- ances | Environ. Debt Service Component (Col. (2) + (3) - (4) - (5) + (6) + (7) + (8) |
| | | | | | | | | |
| | | | | | | | | |
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For each Expense Month included in the 6 Month Review Period, list the appropriate components of the Environmental Debt Service Components.
At the 2 Year Review, provide this information for the entire review period.
Do Not Include Base Period information on this schedule.

BIG RIVERS ELECTRIC CORPORATION - ENVIRONMENTAL SURCHARGE
SIX MONTH AND TWO YEAR REVIEW
RECAP OF POLLUTION CONTROL OPERATING EXPENSES AND AMORTIZATION OF ALLOWANCE SALE PROCEEDS
 For the Period _____ through _____

POLLUTION CONTROL OPERATING EXPENSES

| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
|-----------------------|----------------------|-------------------|-------------------------|----------------------------------|-------------------------------------|--|
| Current Expense Month | Depreciation Expense | Insurance Expense | Taxes Other Than Income | Operation & Maintenance Expenses | Adminis- trative & General Expenses | Total Pollution Control Operating Expenses [Col. (2) thru (7)] |
| | | | | | | |
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AMORTIZATION OF 1993 EMISSION ALLOWANCE SALE PROCEEDS

| Current Expense Month | Monthly Amortization of Allowance Proceeds | Monthly Amortization of Carrying Charge |
|-----------------------|--|---|
| | | |
| | | |
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For each Expense Month included in either the 6 Month or 2 Year Review Period, list the information indicated. Do Not include Base Period information on these schedules.

**BIG RIVERS ELECTRIC CORPORATION
NEW POLLUTION CONTROL CAPITAL INVESTMENTS**

| | |
|--|--|
| PROJECT TITLE and DESCRIPTION: | |
| Dollar Amount of Project [Designate as Actual (A) or Estimated (E)] | |
| List Applicable Environmental Regulation(s) | |
| List Applicable Environmental Permit(s) | |
| Indicate Construction Schedule [Designate as Actual (A) or Estimated (E)] | |
| Indicate Pollutant or Waste By-Product to be Controlled by Project | |
| Designate the Affected Generating Station and the Control Facility | |
| List All Internal Engineering or Economic Studies Completed in Support of the Project [Big Rivers should be prepared to provide access to any listed study if so requested] | |
| Identify the Management Authority who Approved the Project | |
| Identify the Commission Case No(s). where Certificate of Necessity was granted, if applicable | |
| List any Internal Work Order Numbers Applicable to the Project | |

A separate form is to be completed for each proposed project.
Attach additional sheets as necessary.

Submitted By: _____

Title: _____

Date Submitted: _____