

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF LOUISVILLE GAS AND)	
ELECTRIC COMPANY FOR APPROVAL OF ITS)	CASE NO.
2002 COMPLIANCE PLAN FOR RECOVERY BY)	2002-00147
ENVIRONMENTAL SURCHARGE)	

O R D E R

On August 12, 2002, Louisville Gas and Electric Company (LG&E) filed an application, pursuant to KRS 278.183, seeking Commission approval of an amended environmental compliance plan consisting of new and additional pollution control facilities and to amend its Environmental Cost Recovery (ECR) tariff. LG&E asserts that it will need these facilities and will incur the related compliance costs in order to comply with the requirements of the Clean Air Act,¹ the Resource Conservation and Recovery Act,² and other federal, state, or local environmental requirements applicable to coal combustion waste and by-products from facilities used for the generation of energy from coal. LG&E proposed that its amended ECR tariff become effective for bills rendered on and after March 1, 2003.

The following parties requested and were granted full intervention: the Attorney General of the Commonwealth of Kentucky, by and through his Office of Rate Intervention (AG); Kentucky Industrial Utility Customers, Inc. (KIUC); and Robert L. Madison. A consolidated hearing was held on December 20, 2002 for this case and

¹ As amended, 42 U.S.C.A. § 7401 *et seq.*

² As amended, 42 U.S.C.A. § 6901 *et seq.*

Case No. 2002-00146,³ the companion case for Kentucky Utilities Company (KU). All information requested at the public hearing has been filed, and the parties have submitted briefs.

BACKGROUND

LG&E is a privately owned electric and gas utility that generates, transmits, distributes, and sells electricity to approximately 382,000 consumers in Jefferson County and in portions of Bullitt, Hardin, Henry, Meade, Oldham, Shelby, Spencer, and Trimble counties.⁴ LG&E is a wholly owned subsidiary of LG&E Energy Corporation, a non-utility holding company.⁵

KRS 278.183 provides that a utility shall be entitled to the current recovery of its costs of complying with the Clean Air Act as amended and those federal, state, or local environmental requirements that apply to coal combustion wastes and by-products from facilities utilized for the production of energy from coal. Pursuant to KRS 278.183(2), a utility seeking to recover its environmental compliance costs through an environmental surcharge must first submit to the Commission a plan that addresses compliance with the applicable environmental requirements. The plan must also include the utility's testimony concerning a reasonable return on compliance-related capital expenditures

³ Case No. 2002-00146, The Application of Kentucky Utilities Company for Approval of Its 2002 Compliance Plan for Recovery by Environmental Surcharge.

⁴ LG&E distributes and sells natural gas to approximately 303,000 consumers in Jefferson County and in portions of Barren, Bullitt, Green, Hardin, Hart, Henry, Larue, Marion, Meade, Metcalfe, Nelson, Oldham, Shelby, Trimble, and Washington counties.

⁵ LG&E Energy Corporation is a wholly owned subsidiary of Powergen plc, an international holding company based in the United Kingdom. Powergen plc is a wholly owned subsidiary of E.ON AG, an international holding company based in the Federal Republic of Germany.

and a tariff addition containing the terms and conditions of the proposed surcharge applied to individual rate classes. Within 6 months of submission, the Commission must conduct a hearing to:

- (a) Consider and approve the compliance plan and rate surcharge if the plan and rate surcharge are found reasonable and cost-effective for compliance with the applicable environmental requirements;
- (b) Establish a reasonable return on compliance-related capital expenditures; and
- (c) Approve the application of the surcharge.

LG&E's original compliance plan and environmental surcharge were approved by the Commission in 1995 (1995 Plan) in Case No. 1994-00332.⁶ The 1995 Plan was comprised of five capital projects at various generating stations involving sulfur dioxide removal systems and associated air quality equipment, facilities to control emissions of reactive particles, continuous emission monitoring systems, an electrostatic precipitator, and low NOx burners with associated boiler control systems. The ECR tariff for the 1995 Plan provided for a formula to calculate the retail monthly environmental surcharge gross revenue requirement (ES revenue requirement) and applicable monthly surcharge factor. The rate of return authorized for the 1995 Plan environmental capital expenditures was 5.60 percent, which was based on the actual cost of LG&E's October 1993 pollution control bond issue.⁷

⁶ Case No. 1994-00332, The Application of Louisville Gas and Electric Company for Approval of Compliance Plan and to Assess A Surcharge Pursuant to KRS 278.183 to Recover Costs of Compliance with Environmental Requirements of Coal Combustion Wastes and By-Products, final Order dated April 6, 1995.

⁷ Id. at 24.

LG&E added new pollution control facilities to its compliance plan and environmental surcharge through amendments that were approved by the Commission in 2001 (2001 Plan) in Case No. 2000-00386.⁸ The 2001 Plan contained one capital project at various generating stations involving selective catalytic reduction NOx reduction technology facilities, neural network technology, and overfire air systems and burner modifications required by the emission limits mandated by the Environmental Protection Agency (EPA) and the Clean Air Act. The ECR tariff for the 2001 Plan amended the ECR tariff for the 1995 Plan and provided for a formula to calculate the ES revenue requirement and applicable monthly surcharge factor.

In Case No. 2000-00386 the rate of return on the 1995 Plan environmental capital expenditures was reset to 5.28 percent, based on the weighted average cost of LG&E s pollution control debt as of December 31, 2000.⁹ In addition, the Commission established that at the 6-month surcharge reviews a true-up calculation would be made to reflect changes during the review period in the weighted average cost of pollution control bond debt.¹⁰ The rate of return on the 2001 Plan environmental capital expenditures was based on LG&E s overall rate of return on capital, reflecting LG&E s electric capital structure and corresponding debt and preferred stock cost rates as of

⁸ Case No. 2000-00386, The Application of Louisville Gas and Electric Company for Approval of an Amended Compliance Plan for Purposes of Recovering the Costs of New and Additional Pollution Control Facilities and to Amend Its Environmental Cost Recovery Surcharge Tariff, final Order dated April 18, 2001.

⁹ Id. at 19.

¹⁰ Id. at 20.

December 31, 2000.¹¹ The cost of debt and preferred stock were scheduled to be reviewed and re-established during the 6-month surcharge review cases. Like the 1995 Plan rate of return, at the 6-month surcharge reviews a true-up calculation would be made to reflect changes during the review period in the cost of debt. The rate of return on common equity was set at 11.50 percent, with the overall rate of return on capital being 7.72 percent. The overall rate of return is then grossed up to reflect the income tax effect resulting from the returns on preferred stock and common equity.¹²

As part of Case No. 2002-00193,¹³ LG&E's surcharge mechanism was modified in conjunction with the incorporation of surcharge amounts found just and reasonable into the existing base rates of LG&E.¹⁴ Prior to the modification, LG&E's surcharge mechanism was based on the incremental approach. As a result of the decision in

¹¹ Id. at 24-27. During rehearing the Commission included short-term debt and accounts receivable financing in LG&E's electric capital structure along with the corresponding cost rates as of December 31, 2000. See Orders on Rehearing dated May 14, 2001 and August 30, 2001.

¹² The overall rate of return reflects the LG&E electric capital structure and cost rates as of April 30, 2002. The capital structure is made up of short-term debt, accounts receivable financing, long-term debt, preferred stock, and common equity. The rate of return on common equity is 11.50 percent, which is the same return authorized in LG&E's last rate case and utilized in LG&E's earnings sharing mechanism. The overall rate of return on capital before gross-up for taxes is 7.72 percent. The gross-up factor is applied to the preferred stock and common equity components of the overall rate of return on capital, and reflects a composite federal and state income tax rate of 40.3625 percent.

¹³ Case No. 2002-00193, An Examination by the Public Service Commission of the Environmental Surcharge Mechanism of Louisville Gas and Electric Company for the Six-Month Billing Periods Ending April 30, 2000, October 31, 2000, October 31, 2001, and April 30, 2002 and for the Two-Year Billing Period Ending April 30, 2001, final Order dated October 22, 2002.

¹⁴ The incorporation of the surcharge into existing base rates is commonly referred to as a roll-in.

Case No. 2002-00193, LG&E's surcharge mechanism utilizes the base-current methodology. Under the base-current methodology, a surcharge factor for a base period and current period are calculated. The base period surcharge factor reflects the surcharge amount rolled into existing base rates. The use of the base-current methodology eliminated the need to identify and record in the monthly surcharge filings amounts associated with pollution control (PC) plant in service retired or replaced due to the installation of environmental surcharge compliance plan capital projects. Under the base-current methodology, all retirements and replacements recognized as offsets in the monthly surcharge filings through April 30, 2001 were incorporated in the base period surcharge factor. Only retirements or replacements of PC plant in service occurring since April 30, 2001 are reflected in the monthly surcharge filings as part of the current period surcharge factor. The determination of the ES revenue requirements for the 1995 and 2001 Plans were otherwise not changed by the adoption of the base-current methodology.

2003 COMPLIANCE PLAN

LG&E is adding new pollution control facilities to the 1995 and 2001 Plans to reflect its continuing efforts to control fly and bottom ash and sulfur dioxide emissions. The second amendment to the compliance plan (2003 Plan) proposed by LG&E calls for five additional capital projects that include the following facilities:

- 1) The conversion of the existing flue gas desulfurization (FGD) scrubber system at all the Mill Creek Units to wet-stack operation.
- 2) The upgrade of existing electrostatic precipitators at Mill Creek Units 2 and 3; Cane Run Units 1, 2, and 3; and Trimble County Unit 1.
- 3) The restoration of the clearwell water system at the Mill Creek units.

- 4) The vertical and horizontal expansion of the existing Mill Creek landfill and the transfer of approximately 1 million tons of ash from the Mill Creek ash pond to the expanded Mill Creek landfill.
- 5) The addition of sulfur dioxide absorber trays to the FGD scrubber system at Mill Creek Units 3 and 4.

The 2003 Plan has a total estimated capital cost of \$71.1 million, with LG&E proposing an additional one-time charge of approximately \$6.0 million for the transfer of ash from the ash pond to the landfill at Mill Creek.¹⁵

In support of the 2003 Plan, LG&E presented testimony and two analyses of available compliance options: one performed by Powergen's Power Technology Centre for the wet-stack conversion at Mill Creek; and the other by Fuller, Mossbarger, Scott & May Engineers (FMSM Study) of the options available at the Mill Creek site for handling ash.

The AG and KIUC have not challenged the reasonableness or the cost-effectiveness of LG&E's proposed 2003 Plan. Mr. Madison contends that all five projects should be rejected. He argues that LG&E has not met its burden of demonstrating that the projects are necessary to comply with environmental regulations. He states that LG&E has provided emissions information that is in conflict with reports issued by the Jefferson County Air Pollution Control District. He proposes that the Mill Creek landfill expansion project should be rejected because of the lack of information. Mr. Madison also argues that if LG&E were not making off-system sales, the additional pollution control investments would not be needed.¹⁶

¹⁵ Bellar Direct Testimony, Exhibit LEB-1.

¹⁶ Madison Brief at 6-8, 10-11, and 15-16 of 19.

The Commission is not persuaded by Mr. Madison's arguments. Contrary to Mr. Madison's assertions, LG&E has demonstrated that the projects in the 2003 Plan are necessary for its continued compliance with federal, state, and local environmental regulations. LG&E has demonstrated that the emissions data challenged by Mr. Madison is in agreement with information reported by the EPA. LG&E has stated that no employee has been charged with misrepresenting data filed with federal, state, or local regulatory agencies.¹⁷ The FMSM Study documents the extensive analysis performed to determine the reasonableness of the alternative selected for the Mill Creek landfill project. Finally, Mr. Madison has provided no credible evidence establishing the link he contends exists between the need for these pollution control facilities and LG&E's continuing efforts to make off-system sales.

The evidence shows that all the projects in the 2003 Plan are related to, and necessary for, compliance with the Clean Air Act as amended and other governmental regulations pertaining to coal combustion wastes and by-products resulting from the production of electricity from coal. The submitted analyses show that LG&E sufficiently reviewed and evaluated the available options and selected the options that are reasonable. Based upon this review, the Commission finds that all five projects are reasonable means of compliance with environmental regulations.

Based on the evidence submitted, the Commission further finds that four of the proposed projects are also cost-effective means of compliance. However, the evidence is insufficient at this time to determine whether the Mill Creek landfill project is cost-

¹⁷ Transcript of Evidence (T.E.), December 20, 2002, at 106.

effective. There are significant uncertainties associated with this landfill project that make it impossible at this time to find that the project as proposed is cost-effective.

The Mill Creek landfill project involves the vertical and horizontal expansion of the existing landfill. In 2002, LG&E began the development of the vertical expansion permit, which it anticipates filing with the Kentucky Division of Waste Management in February 2003. LG&E expects the vertical expansion permit will be granted within 6 months or no later than the end of 2003. Construction of the vertical expansion will commence in late 2003 and be completed in 2004. The permit application for the horizontal expansion will be developed in 2003 and LG&E anticipates the regulatory review to take 18 to 30 months. In addition, LG&E must negotiate agreements with the Metropolitan Sewer District (MSD) and the U.S. Army Corps of Engineers (Corps of Engineers) in conjunction with the horizontal expansion.¹⁸ The negotiations involve the relocation or construction over a flood control levee that bisects the Mill Creek landfill site.¹⁹

Unlike the situation with KU's Ghent ash pond dike project,²⁰ LG&E is only beginning the permitting process for the vertical expansion phase of the landfill project. The completion of this permit process, along with the permit required for the horizontal

¹⁸ Joint Post-Hearing Brief of LG&E and KU at 6-7 and Response to KIUC's First Data Request dated September 6, 2002, Item 2, page 52 of 88.

¹⁹ Bellar Direct Testimony, Exhibit LEB-2, page 10 of 36.

²⁰ In Case No. 2002-00146, KU has proposed to raise the embankment crest elevation of the ash pond dike at the Ghent generating station to the 800-foot level. KU has already secured the necessary permit to raise the elevation to 785 feet, and has pending with the Kentucky Division of Water a modification authorizing the 800-foot level.

expansion and the negotiations with MSD and the Corps of Engineers, may well result in the imposition of conditions, restrictions, or other operational requirements that could adversely impact the project's current estimated cost of \$28.0 million. This is the largest single project proposed in LG&E's 2003 Plan. Depending on the results of successfully securing the permits and concluding the negotiations with MSD and the Corps of Engineers, the current estimated costs of the project could change. Thus, this project is still subject to significant uncertainties, which make it impossible to accurately determine its cost-effectiveness at this time.

LG&E has indicated that it is confident it will secure the permits in a timely manner and successfully conclude the necessary negotiations. LG&E offered to provide the Commission with progress reports on the status of the permitting and construction during the course of the monthly surcharge filings or at the 6-month review periods. LG&E believes this reporting will ensure that the Commission will be fully and timely informed of the status of the landfill project and any changes in the cost estimates.²¹

The Commission appreciates LG&E's commitment to filing periodic status reports. However, to the extent that the project's cost may change based on the final granting of permits and the completion of negotiations, those cost changes could impact the determination of whether the project is cost-effective. LG&E's commitment to provide future progress reports does not satisfy the statutory requirement, under KRS 278.183(2), that the Commission must now determine whether the proposed compliance plan is reasonable and cost-effective.

²¹ Joint Post-Hearing Brief of LG&E and KU at 7.

Based on a review of LG&E s 2003 Plan, the Commission finds that the following projects are reasonable, cost-effective, and should be approved as the 2003 Plan:

- 1) The conversion of the existing FGD scrubber system at all the Mill Creek Units to wet-stack operation.
- 2) The upgrade of existing electrostatic precipitators at Mill Creek Units 2 and 3; Cane Run Units 1, 2, and 3; and Trimble County Unit 1.
- 3) The restoration of the clearwell water system at the Mill Creek units.
- 4) The addition of sulfur dioxide absorber trays to the FGD scrubber system at Mill Creek Units 3 and 4.

LG&E may resubmit the Mill Creek landfill project for inclusion in the environmental compliance plan once it has eliminated the uncertainty concerning the capital expenditures that will be required for the project. Given the nature of the Mill Creek landfill project, LG&E should give consideration to separating the project into two phases, one for the vertical expansion and one for the horizontal expansion.

SURCHARGE MECHANISM AND CALCULATION

LG&E has proposed to maintain the separation of the 1995 Plan and the 2001 Plan ES revenue requirements as determined by the Commission in Case Nos. 2000-00386 and 2002-00193. LG&E proposed no changes in the surcharge mechanism or calculation of the ES revenue requirements and monthly surcharge factor for the 1995 Plan and the 2001 Plan.

For the 2003 Plan, LG&E proposed that the environmental surcharge mechanism be similar to that used for the 1995 and 2001 Plans. Under this approach, the current period ES revenue requirement is divided by the revenue for the current expense

month,²² resulting in a monthly surcharge factor for the current period. The current period ES revenue requirement is determined for the current expense month, and is comprised of a return on the 2003 Plan Environmental Compliance Rate Base (Rate Base) plus specified environmental compliance operating expenses.²³ LG&E further proposed that the calculation of the ES revenue requirement for the 2003 Plan be shown separately in the monthly surcharge report.

LG&E s proposed 2003 Plan Rate Base used in the environmental surcharge mechanism includes the following components: eligible PC plant in service, accumulated depreciation associated with the PC plant in service, eligible PC construction work in progress (CWIP), deferred income taxes, and deferred investment tax credits. The Rate Base would be adjusted for eligible PC plant in service, accumulated depreciation, and deferred taxes relating to replacements and retirements of PC plant in service that are already included in existing rates. LG&E did not propose to include a cash working capital allowance in the 2003 Plan Rate Base determination, since it did not anticipate significant changes in ongoing operating and maintenance (O&M) expenses to be incurred in conjunction with the 2003 Plan.²⁴

While LG&E did not propose to include any O&M expenses in the ES revenue requirement determination, it did propose that the one-time, nonrecurring \$6.0 million

²² The current expense month is defined as the second month preceding the month in which the environmental surcharge is billed.

²³ Bush Direct Testimony, Exhibit FHB-2.

²⁴ The Commission notes that LG&E s proposed ECR tariff includes a reference to O&M expense recovery authorized in this proceeding. See Bush Direct Testimony, Exhibit FHB-2.

cost for transferring ash from the ash pond to the landfill at Mill Creek be recovered through the surcharge mechanism and that it planned to separately track this cost in its accounting system.²⁵ LG&E proposes to recover this expense through the surcharge using a 12-month rolling average calculation beginning with the month in which the expense is originally incurred. LG&E contends that this cost should be expensed instead of deferred and amortized because the activity does not constitute an addition to the existing asset.²⁶

In addition to the one-time ash transfer cost, LG&E proposed that the monthly environmental compliance operating expenses for the 2003 Plan should include: depreciation expense, property taxes, and insurance expense. The depreciation expense, property taxes, and insurance expense are functions of the value of the PC plant in service and the monthly expense amounts would reflect that calculation.

KIUC raised several concerns about the costs to be reflected in LG&E s 2003 Plan ES revenue requirement. First, KIUC noted that LG&E s internal economic analysis of the proposed 2003 Plan amendments had identified approximately \$1.3 million in annual O&M cost reductions. KIUC argued that all reductions to O&M expenses that are already included in existing rates must be reflected in the surcharge calculations. KIUC stated that this offset is required by KRS 278.183, is consistent with

²⁵ Rives Direct Testimony at 2-3.

²⁶ Response to the Commission Staff s First Data Request dated September 10, 2002, Items 12(c) and 12(d).

previous Commission surcharge decisions, and without this offset LG&E would double recover those expenses.²⁷

Second, KIUC disagreed with LG&E's proposal to expense over 12 months the estimated \$6.0 million cost for the ash transfer from the ash pond to the landfill at Mill Creek. KIUC argued that this transfer would extend the useful life of the ash pond and suggested that the cost be deferred and amortized over a period of time equal to the extended life. KIUC further suggested that the unamortized balance of the deferred asset should be included in the 2003 Plan Rate Base.²⁸

Finally, KIUC raised the concern that since LG&E had included removal costs in its internal economic analysis, LG&E would possibly include the removal costs in the final amounts capitalized for the various projects contained in the 2003 Plan. KIUC stated this accounting treatment is not consistent with the Federal Energy Regulatory Commission's Uniform System of Accounts (FERC USoA), and recommended that the Commission direct LG&E to follow the FERC USoA.²⁹

Mr. Madison raised several issues concerning the surcharge mechanism. Mr. Madison argued that the revenues included in the surcharge calculations reflect certain costs that he believes should not be included in the determination of the monthly surcharge amounts. Mr. Madison proposed that the Commission abandon the percentage of revenue approach utilized in the current surcharge mechanism and adopt an approach he developed that expresses the surcharge as an amount per kWh.

²⁷ KIUC Brief at 6.

²⁸ Id. at 10-11.

²⁹ Kollen Direct Testimony at 26-27.

Finally, Mr. Madison claimed that the current surcharge mechanism charges residential and commercial customers too much of the environmental costs.³⁰

LG&E responded to each concern raised by KIUC. Of the \$1.3 million in estimated O&M expense reductions, LG&E noted that all but \$175,000 of that amount represented avoided incremental costs that are not already included in existing rates.³¹ LG&E noted that KIUC acknowledged at the hearing that the assumption was made that the estimated \$1.3 million in O&M expense reductions corresponded to expenses already included in existing rates.³² Concerning the remaining \$175,000 of expense, LG&E stated that the employees associated with these expenses had not been terminated, but reassigned to other areas at the Mill Creek generating station.³³ While LG&E opposed KIUC's recommendation to defer and amortize the ash transfer costs, it agreed that if the Commission decided to require the establishment of a deferred asset, a 4-year amortization of the deferral with the inclusion of the unamortized balance in Rate Base was reasonable.³⁴ LG&E responded to KIUC's concern about the accounting for removals by stating it would follow the accounting requirements of the FERC USoA when it records the capital costs of the 2003 Plan projects.³⁵

³⁰ Madison Post-Hearing Brief at 3-6 and 12-15 of 19.

³¹ Rives Rebuttal Testimony at 5. The rebuttal testimony of Mr. Rives to KIUC's direct testimony was jointly filed in this case and Case No. 2002-00146.

³² Joint Post-Hearing Brief of LG&E and KU at 13-14.

³³ Id. at 16.

³⁴ Id. at 10-11.

³⁵ Rives Rebuttal Testimony at 7-8.

LG&E and KIUC both objected to the proposals of Mr. Madison. LG&E contended that Mr. Madison's proposals were not consistent with previous Commission decisions, were arbitrary in that revenues and expenses were combined to allocate a surcharge assessed on revenues, were inappropriate because LG&E's environmental compliance costs were largely fixed rather than variable, and that Mr. Madison's allocation of the surcharge using a uniform cost per kWh was not supported by a cost-of-service study.³⁶ KIUC argued that Mr. Madison's proposals were without merit because Mr. Madison had no experience working for a utility or any formal training or education related to public utility law or economics. KIUC stated that Mr. Madison's allocation proposal had no cost-of-service justification and ignored previous Commission decisions concerning the allocation of the environmental surcharge.³⁷

Concerning the estimated expense reductions identified in LG&E's internal economic analysis, the Commission finds that LG&E has demonstrated that the bulk of these reductions are avoided incremental expenses and an offset in the surcharge calculations is not necessary. We also note that KIUC agrees with this conclusion.³⁸ The Commission also finds that LG&E has demonstrated that the remaining expense reduction represents labor expenses that were reassigned within the Mill Creek operations, thus no offset to the surcharge calculations for O&M expense reductions is required at this time. However, LG&E is reminded that it has a continuing obligation to review O&M expenses that are already included in existing rates and to the extent those

³⁶ Joint Post-Hearing Brief of LG&E and KU at 19-21.

³⁷ KIUC Brief at 11-13.

³⁸ T.E., December 20, 2002, at 141.

expenses are impacted by the 2003 Plan projects, that impact must be recognized in the surcharge calculations.

Concerning the treatment of the ash transfer costs, the Commission has already found that there is insufficient evidence to now include the Mill Creek landfill project in LG&E's environmental compliance plan. Since the ash transfer is an integral component of that project, no cost associated with the ash transfer should be included in the surcharge calculations at this time. The treatment of that cost will have to be addressed if and when LG&E resubmits the Mill Creek landfill project for consideration in a new environmental compliance plan amendment.

With regard to KIUC's concern that LG&E would not record the capital costs associated with the 2003 Plan projects in accordance with the FERC USoA, the Commission believes the concern is resolved based on LG&E's rebuttal testimony. However, LG&E is reminded that its accounting for PC capital costs will be subject to review during subsequent 6-month surcharge reviews.

Concerning the proposals of Mr. Madison, the Commission believes the record adequately demonstrates that Mr. Madison does not possess the experience or qualifications necessary to present testimony as an expert in the areas of rate-making or rate design. Consequently, the Commission has given his proposals the same consideration that would be given to public comment by any ratepayer. Based on this finding and after reviewing his proposals, the Commission is not persuaded by any of Mr. Madison's arguments and finds no justification for any of his proposed charges to the surcharge mechanism.

The Commission finds that the 2003 Plan Rate Base should be comprised of PC plant in service, accumulated depreciation associated with the PC plant in service, eligible PC CWIP, deferred income taxes, and deferred investment tax credits. As is done under the base-current methodology,³⁹ the 2003 Plan Rate Base should be adjusted for eligible PC plant in service, accumulated depreciation, and deferred taxes to reflect any retirement or replacement of PC plant in service that is already included in existing rates.

The Commission further finds LG&E's proposal concerning the recovery of depreciation expense, property taxes, and insurance expense associated with the 2003 Plan to be reasonable and it should be approved. However, to the extent that retirements or replacements of PC plant in service already included in base rates impact the determination of these expenses, LG&E should include the necessary adjustment to the expense reported for the current expense month.

The Commission notes that several components of the approved 2003 Plan projects have already been completed and are in service.⁴⁰ When including these components in the 2003 Plan Rate Base and surcharge calculations, LG&E should record the original cost, accumulated depreciation, and associated deferred taxes on

³⁹ As noted previously in this Order, for the 1995 Plan and 2001 Plan Rate Bases, any retirements or replacements of PC plant in service occurring since April 30, 2001 are reflected in the monthly surcharge filings as part of the current period surcharge factor.

⁴⁰ Bellar Direct Testimony, Exhibit LEB-1. The components of the approved 2003 Plan that LG&E has indicated are already completed are: wet-stack conversion at Mill Creek Units 2 and 4; electrostatic precipitator upgrades at Mill Creek Units 2 and 3; restoration of the clearwell water system at the Mill Creek Units; and the addition of sulfur dioxide absorber trays at Mill Creek Units 3 and 4.

any completed PC plant in service. Concerning the other components of the approved 2003 Plan projects, the Commission anticipates that LG&E will not incur the discussed operating expenses until the 2003 Plan facilities have gone into service. If a monthly surcharge factor includes these expenses prior to the 2003 Plan facilities going into service, LG&E should submit as part of the monthly surcharge filing a written explanation documenting why the expense has been incurred. The inclusion of that expense would be subject to review during the appropriate 6-month surcharge review.

RATE OF RETURN

LG&E proposed no changes to the rate of return applied to the 1995 Plan and the 2001 Plan Rate Bases. For the 2003 Plan Rate Base, LG&E proposed that it be allowed to earn the overall rate of return on capital, the same approach and rate of return authorized for the 2001 Plan.⁴¹ None of the intervenors expressed any opposition to LG&E's proposal on the rate of return.

The Commission finds that the reasonable rate of return to apply to the 2003 Plan Rate Base should be the overall rate of return on capital, as was approved for the 2001 Plan Rate Base in Case No. 2002-00193. The application of the overall rate of return on capital to the 2003 Plan Rate Base will be consistent with the approach outlined for the 2001 Plan Rate Base in Case No. 2000-00386.⁴² As noted previously in this Order, the current overall rate of return on capital used for the 2001 Plan is 7.72 percent.

⁴¹ Beer Direct Testimony at 4 and Bush Direct Testimony, Exhibit FHB-1.

⁴² Case No. 2000-00386, April 18, 2001 Order at 27.

SURCHARGE FORMULAS

As noted previously, LG&E's current surcharge mechanism utilizes a base-current methodology. Under this methodology, a Base Period Jurisdictional Environmental Surcharge Factor (BESF) and a Current Period Jurisdictional Environmental Surcharge Factor (CESF) are calculated. The approved 2003 Plan will not impact the determination of the BESF.

The CESF is expressed as:

$$\text{CESF} = \text{Net Jurisdictional E(m)} / \text{Jurisdictional R(m)}$$

Where:

Jurisdictional R(m)	Average Monthly Jurisdictional Revenue for the 12 Months Ending with the Current Expense Month
Net Jurisdictional E(m)	(Total E(m) x Jurisdictional Allocation Ratio) +/- Adjustments for Over/(Under) Recoveries and Monthly True-Up

The Total E(m) reflects the sum of two formulas. The addition of the 2003 Plan to the surcharge mechanism makes it necessary to retain two formulas, stated as follows:

1995 Plan

The monthly ES revenue requirement, 1995E(m), is as follows:

$$1995E(m) = [(RB / 12) (ROR)] + OE \quad \text{BAS}$$

Where:

1995E(m)	1995 Plan ES Revenue Requirement
RB	Environmental Compliance Rate Base for the 1995 Plan
ROR	Rate of Return on the 1995 Plan Rate Base
OE	Pollution Control Operating Expenses for the 1995 Plan

BAS

Net Proceeds from By-Product and Allowance Sales

2001 and 2003 Plans

Because the rate of return for both the 2001 and 2003 Plans is the overall rate of return on capital, one consolidated formula can be utilized to identify that portion of the overall surcharge mechanism.⁴³ The monthly ES revenue requirement, Post-1995E(m) is as follows:

$$\text{Post-1995E(m)} = \left[\left(\frac{\text{RB}}{12} \right) \left(\text{ROR} + (\text{ROR} - \text{DR}) \left(\frac{\text{TR}}{1 - \text{TR}} \right) \right) \right] + \text{OE}$$

Where:

Post-1995E(m)	2001 and 2003 Plan Revenue Requirements
RB	Environmental Compliance Rate Base for the 2001 and 2003 Plans
ROR	Rate of Return on Environmental Compliance Rate Base, designated as the overall rate of return [cost of short-term debt, accounts receivable financing, long-term debt, preferred stock, and common equity]
DR	Debt Rate [cost of short-term debt, accounts receivable financing, and long-term debt]
TR	Composite Federal and State Income Tax Rate
OE	Operating Expenses: Depreciation and Amortization Expense, Property Taxes, and Insurance Expense, adjusted for amounts related to retirements or replacements occurring since the last roll-in of the surcharge into existing rates. Includes O&M expense associated with NOx control projects in the 2001 Plan, as recorded in Account Nos. 506105 and 512101

⁴³ The consolidated formula will be referred to as Post-1995E(m) and the calculations shown on the monthly surcharge reports will be labeled as Post-1995 Plan.

The sum of the 1995E(m) and Post-1995E(m), Total E(m), is multiplied by the Jurisdictional Allocation Ratio⁴⁴ to arrive at the Jurisdictional E(m). LG&E's environmental surcharge costs are allocated to all its sales, including those to jurisdictional retail customers and non-jurisdictional wholesale customers. By using sales revenue as the factor for the allocation, LG&E's retail customers pay for none of the environmental costs attributable to wholesale sales to other utilities. After recognizing any adjustments for over- or under-recoveries and monthly true-up, the Net Jurisdictional E(m) is divided by Jurisdictional R(m),⁴⁵ resulting in CESF.

The addition of the 2003 Plan will require a revision to the monthly surcharge reporting formats. LG&E provided sample monthly reporting formats, but indicated that it was agreeable to some modification to its proposed formats.⁴⁶ Appendix A to this Order contains the monthly surcharge reporting formats that are to be submitted by LG&E for all environmental surcharge filings after the effective date of the amended ECR tariff.

⁴⁴ The Jurisdictional Allocation Ratio is calculated by dividing the current expense month's Kentucky jurisdictional revenues by the current expense month's Total Company revenues. Environmental surcharge revenues are excluded from both components of the calculation. There will be no change in the calculation due to the addition of the 2003 Plan.

⁴⁵ Jurisdictional R(m) is the average monthly jurisdictional revenue for the 12 months ending with the current expense month. This average amount is exclusive of the environmental surcharge revenues, and is unchanged due to the addition of the 2003 Plan.

⁴⁶ Response to the Commission Staff's First Data Request dated September 10, 2002, Item 15(b). Specifically, LG&E had proposed to show the determination of each Plan's revenue requirement separately on ES Form 2.00. Since the components used to determine the revenue requirement for the 2001 and 2003 Plans were separately identified on the support pages of the formats, LG&E indicated it was agreeable to combining the components for the 2001 and 2003 Plans on ES Form 2.00.

EFFECTIVE DATE OF AMENDED ECR TARIFF

LG&E had requested approval of its proposed ECR tariff to become effective for bills rendered on and after March 1, 2003. In Case Nos. 1994-00332 and 2000-00386, the surcharge mechanism and ECR tariff were approved for service rendered on and after the date of the approving Order. LG&E indicated that if the proposed amended ECR tariff became effective for service rendered on and after March 1, 2003, it would be required to calculate the surcharge factor prior to and subsequent to the implementation of the new ECR tariff and prorate each bill for the number of days in the billing cycle prior to the implementation.⁴⁷ As an alternative, LG&E indicated that it was agreeable to the effective date being the first day of the second billing month following the approval of the amended ECR tariff.⁴⁸

The Commission finds that the amended ECR tariff should not become effective for bills rendered on and after March 1, 2003 because that would require customers to pay for increases in environmental costs prior to the approval of those increases. A reasonable alternative to the bills rendered proposal is for the effective date of the amended ECR tariff to be the first day of the second billing month following the approval of the amended ECR tariff.

IT IS THEREFORE ORDERED that:

1. LG&E's 2003 Plan, as modified herein, consisting of four additional capital projects to meet federal, state, and local environmental regulations is approved.

⁴⁷ Response to the Commission Staff's First Data Request dated September 10, 2002, Item 1.

⁴⁸ Response to the Commission Staff's Second Data Request dated October 10, 2002, Item 1.

2. LG&E s proposed Mill Creek landfill capital project is denied without prejudice to being refiled when its costs are known with greater certainty.

3. LG&E s proposed ECR tariff is denied.

4. LG&E s ECR tariff as modified herein is approved and shall be effective the first day of the second billing month following the ECR tariff approval.

5. LG&E s rate of return on the 1995 and 2001 Plans shall remain unchanged from that authorized in Case No. 2002-00193.

6. LG&E s rate of return on the 2003 Plan shall be determined in the same manner as that authorized for the 2001 Plan in Case No. 2002-00193. The current rate of return is 7.72 percent. The rate of return true-up process for the 2003 Plan shall be the same as the process established for the 2001 Plan rate of return.

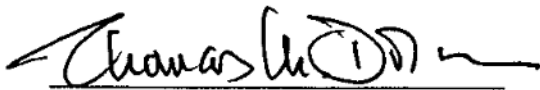
7. The reporting formats included in Appendix A shall be used for each LG&E monthly surcharge filing. Previous reporting formats shall no longer be submitted.

8. Within 10 days of the date of this Order, LG&E shall file with the Commission revised tariff sheets setting out the ECR tariff as modified and approved herein.

Done at Frankfort, Kentucky, this 11th day of February, 2003.

By the Commission

ATTEST:

A handwritten signature in black ink, appearing to read "Charles W. [unclear]", written over a horizontal line.

Executive Director

APPENDIX A

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 2002-00147 DATED February 11, 2003

Environmental Surcharge Monthly Report Formats

These report formats will be used by LG&E for all monthly surcharge filings after the effective date of the amended ECR tariff. These report formats will replace all previously approved report formats developed for LG&E's environmental surcharge filings. LG&E will not modify any format without the prior consent of the Commission Staff.

Index of Formats

- ES Form 1.0
Calculation of Monthly Billed Environment Surcharge Factor MESF
- ES Form 1.1
Calculation of Current Period Jurisdictional Environmental Surcharge Factor
CESF
- ES Form 2.00
Current Period Revenue Requirements of Environmental Compliance Costs
- ES Form 2.10
Plant Investment and Related Costs 1995 Plan
- ES Form 2.11
Plant Investment and Related Costs Post-1995 Plan
- ES Form 2.30
Inventory of Emission Allowances
- ES Form 2.40
O & M Expenses and Determination of Working Capital Allowance
- ES Form 3.0
Average Monthly Jurisdictional Revenue Computation of R(m)
- ES Form 3.1
Reconciliation of Reported Revenues

[ES Form 2.20 Reserved for Future Use]

**LOUISVILLE GAS AND ELECTRIC COMPANY
ENVIRONMENTAL SURCHARGE REPORT**
Calculation of Monthly Billed Environmental Surcharge Factor **MESF**
For the Expense Month of {Month Year}

$$\text{MESF} = \text{CESF} \times \text{BESF}$$

Where:

CESF Current Period Jurisdictional Environmental Surcharge Factor

BESF Base Period Jurisdictional Environmental Surcharge Factor

Calculation of MESF:

CESF, from ES Form 1.1
BESF, from Case No. 2002-00193 0.78%

MESF

Effective Date for Billing:

Submitted by: _____

Title: _____

Date Submitted: _____

**LOUISVILLE GAS AND ELECTRIC COMPANY
ENVIRONMENTAL SURCHARGE REPORT**

**Calculation of Current Period Jurisdictional Environmental Surcharge Factor CESF
For the Expense Month of {Month Year}**

$$\text{CESF} = \text{Net Jurisdictional E(m)} / \text{Jurisdictional R(m)}$$

Where:

Jurisdictional R(m) Average Monthly Jurisdictional Revenue for the 12 Months Ending with the Current Expense Month
 Net Jurisdictional E(m) (Total E(m) x Jurisdictional Allocation Ratio) +/- Adjustments for Over/(Under) Recoveries and Monthly True-Up

Calculation of Total E(m)

$$\text{Total E(m)} = 1995\text{E(m)} + \text{Post-1995E(m)}$$

1995E(m) = [(RB / 12) (ROR)] + OE BAS, where

RB Environmental Compliance Rate Base for the 1995 Plan
 ROR Rate of Return on the 1995 Plan Rate Base
 OE Pollution Control Operating Expenses for the 1995 Plan
 BAS Net Proceeds from By-Product and Allowance Sales

Post-1995E(m) [(RB / 12) (ROR + (ROR - DR)(TR / (1 - TR)))] + OE, where

RB Environmental Compliance Rate Base for the 2001 and 2003 Plans
 ROR Rate of Return on the 2001 and 2003 Plan Rate Base
 DR Debt Rate (short-term debt, accounts receivable financing, and long-term debt)
 TR Composite Federal & State Income Tax Rate
 OE Pollution Control Operating Expenses for the 2001 and 2003 Plans

	1995 Plan	Post-1995 Plan
RB		
RB / 12		
ROR [1995 Plan]		---
[ROR + (ROR - DR)(TR / (1 - TR))] [Post-1995 Plan]	---	
OE		
BAS		
1995E(m)		
Post-1995E(m)		

$$\text{Total E(m)} = 1995\text{E(m)} + \text{Post-1995E(m)}$$

Calculation of Jurisdictional Environmental Surcharge Billing Factor

Jurisdictional Allocation Ratio for Current Expense Month
 Jurisdictional E(m) = Total E(m) x Jurisdictional Allocation Ratio
 Adjustment for Over/(Under) Recovery, Case No.
 Adjustment for True-Up

Net Jurisdictional E(m) = Jurisdictional E(m) minus Adjustment for Over/(Under) Recovery plus/minus Adjustment for Monthly True-Up

Jurisdictional R(m) = Average Monthly Jurisdictional Revenue for the 12 Months Ending with the Current Expense Month

Jurisdictional Environmental Surcharge Billing Factor:

$$\text{CESF} = \text{Net Jurisdictional E(m)} / \text{Jurisdictional R(m)} \text{ [%of Revenue]}$$

LOUISVILLE GAS AND ELECTRIC COMPANY
ENVIRONMENTAL SURCHARGE REPORT
Current Period Revenue Requirements of Environmental Compliance Costs
For the Expense Month of {Month Year}

Determination of Environmental Compliance Rate Base (RB)

	1995 Plan		Post-1995 Plan	
Eligible Pollution Control Plant				
Eligible Pollution CWIP Excluding AFUDC				
Cash Working Capital Allowance				
Subtotal				
Deductions:				
Accumulated Depreciation on Eligible Pollution Control Plant				
Pollution Control Deferred Income Taxes				
Pollution Control Deferred Investment Tax Credit				
Subtotal				
Environmental Compliance Rate Base				

Determination of Pollution Control Operating Expenses (OE)

	1995 Plan	Post-1995 Plan
Monthly Operations & Maintenance Expense		
Monthly Depreciation & Amortization Expense		
Monthly Property & Other Applicable Taxes (Net of pre-1993 amounts)		
Monthly Insurance Expense (Net of pre-1993 amounts)		
Monthly Emission Allowance Expense		
Monthly Surcharge Consultant Fee		
Monthly Permitting Fees		
Less: Operating Expenses Associated with Retirements or Replacements Occurring Since Last Roll-in of Surcharge into Existing Rates		
Total Pollution Control Operating Expenses		

**LOUISVILLE GAS AND ELECTRIC COMPANY
ENVIRONMENTAL SURCHARGE REPORT
Current Period Revenue Requirements of Environmental Compliance Costs
For the Expense Month of {Month Year}**

Determination of Proceeds from Allowance and By-Product Sales (BAS)
[1995 Plan Only]

	Gross Proceeds	Sales Expenses	Net Proceeds
Allowance Sales			
Scrubber By-Product Sales			
Total Proceeds from Sales			

True-Up Adjustment
Over/(Under) Recovery of Monthly Surcharge Due to Timing Differences

A	MESF for {Two Months Previous Expense Month}	
B	Jurisdictional Revenues for {Current Expense Month}, excluding Environmental Surcharge	
C	Surcharge Amount from {Current Month} Billing (A x B)	
D	Current Expense Month Actual Surcharge Revenues Collected	
E	Over/(Under) Recovery due to Timing Differences (C - D)	
Over-recoveries will be deducted from the Jurisdictional E(m); under-recoveries will be added to the Jurisdictional E(m).		

**LOUISVILLE GAS AND ELECTRIC COMPANY
 ENVIRONMENTAL SURCHARGE REPORT
 Plant Investment and Related Costs 1995 Plan
 For the Expense Month of {Month Year}**

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Project	Plant in Service Balance	Accum. Depreciation	CWIP Excluding AFUDC	Eligible Net Book Value (2)-(3)+(4)	Deferred Tax Balance as of {Date}	Unamort. Investment Tax Credit
Mill Creek Air Quality Systems Improvements						
Mill Creek Reactive Particle Emission Project						
Continuous Emission Monitoring Systems						
Cane Run Unit 4 Precipitator						
Nitrogen Oxide Emission Controls						
Totals						
Less Balances for Retirements or Replacements Since Surcharge Roll-In						
Net Totals						

Retirements and replacements occurring since the last surcharge roll-in are to be shown in total, for all columns impacted. The utility will keep the detailed information supporting this item.

**LOUISVILLE GAS AND ELECTRIC COMPANY
ENVIRONMENTAL SURCHARGE REPORT
Plant Investment and Related Costs Post-1995 Plan
For the Expense Month of {Month Year}**

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Project	Plant in Service Balance	Accum. Depreciation	CWIP Excluding AFUDC	Eligible Net Book Value (2)-(3)+(4)	Deferred Tax Balance As of {Date}	Unamort. Investment Tax Credit
2001 Plan:						
LG&E Nox						
Less Balances for Retirements or Replacements Since Surcharge Roll-In						
Total 2001 Plan						
2003 Plan:						
Mill Creek FGD Scrubber Conversion						
Precipitator Upgrades All Plants						
Clearwell Water System Mill Creek						
SO ₂ Absorber Trays Mill Creek 3 & 4						
Subtotal						
Less Balances for Retirements or Replacements Since Surcharge Roll-In						
Total 2003 Plan						
Post-1995 Plan Totals (2001 and 2003 Plans Combined)						

Retirements and replacements occurring since the last surcharge roll-in are to be shown in total, for all columns impacted. The utility will keep the detailed information supporting this item.

When applicable, LG&E shall reflect a Retirement and Replacement adjustment in the month facilities associated with the 2001 or 2003 Plan are placed in service.

**LOUISVILLE GAS AND ELECTRIC COMPANY
 ENVIRONMENTAL SURCHARGE REPORT
 Inventory of Emission Allowances
 For the Expense Month of {Month Year}**

Vintage Year	Number of Allowances	Total Dollar Value of Vintage Year	Comments and Explanations
Current Year			
2004			
2005			
2006			
2007			
2008			
2009			
2010			
2011			
2012			
2013			
2014			
2015			
2016			
2017			
2018			
2019			
2020 2029			

In the Comments and Explanation column, describe any allowance inventory adjustment other than the assignment of allowances by EPA. Inventory adjustments include, but are not limited to, purchases, allowances acquired as part of other purchases, and the sale of allowances.

**LOUISVILLE GAS AND ELECTRIC COMPANY
 ENVIRONMENTAL SURCHARGE REPORT
 O & M Expenses and Determination of Working Capital Allowance
 For the Expense Month of {Month Year}**

2001 Plan Only

Eligible O & M Expenses 12 Month Period Account Nos. 506105 & 512101	
11 th Previous Month	
10 th Previous Month	
9 th Previous Month	
8 th Previous Month	
7 th Previous Month	
6 th Previous Month	
5 th Previous Month	
4 th Previous Month	
3 rd Previous Month	
2 nd Previous Month	
Previous Month	
Current Month	
Total O & M Expenses 12 Months Ending with Current Month	
Pollution Control Working Capital Allowance One Eighth (1/8 th) of 12 Months O & M Expenses	

**LOUISVILLE GAS AND ELECTRIC COMPANY
ENVIRONMENTAL SURCHARGE REPORT**
Average Monthly Jurisdictional Revenue Computation of R(m)
For the Expense Month of {Month Year}

(1)	Kentucky Jurisdictional Revenues					Non-Jurisdictional Revenues	Total
	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Month	Base Rate Revenues	Fuel Clause Revenues	Environmental Surcharge Revenues	Total (2)+(3)+(4)	Total Excluding Environmental Surcharge (5)-(4)	Total Including Off-System Sales (See Note 1)	Total (5)+(6)+(7)
Average Monthly Jurisdictional Revenues, Excluding Environmental Surcharge, for 12 Months Ending Current Expense Month							
Jurisdictional Allocation Ratio for Current Month (Environmental Surcharge Excluded from Calculations): Expense Month Kentucky Jurisdictional Revenues divided by Expense Month Total Company Revenues [Column (6) / Column (8)]							Note 1 Excludes Broke Sales; Total for Current M

**LOUISVILLE GAS AND ELECTRIC COMPANY
ENVIRONMENTAL SURCHARGE REPORT**
Reconciliation of Reported Revenues
For the Expense Month of {Month Year}

Description	Revenues per ES Form 3.0	Revenues per Income Statement
Kentucky Jurisdictional Revenues:		
Base Rates		
Fuel Adjustment Clause		

ES Form 3.1

Environmental Surcharge		
(Identify)		
(Identify)		
Total Kentucky Jurisdictional Revenues for Environmental Surcharge Purposes		
Non-Jurisdictional Revenues:		
(Identify)		
(Identify)		
(Identify)		
Total Non-Jurisdictional Revenues for Environmental Surcharge Purposes		
Total Company Revenues for Environmental Surcharge Purposes		
Reconciling Revenues:		
(Identify)		
(Identify)		
(Identify)		
Total Company Revenues per Income Statement		