COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF LOUISVILLE GAS AND ELECTRIC COMPANY FOR APPROVAL OF AN ALTERNATIVE METHOD OF REGULATION OF ITS RATES AND SERVICES	) CASE NO. 98-426

In the Matter of:

APPLICATION OF KENTUCKY UTILITIES COMPANY FOR APPROVAL OF AN ALTERNATIVE METHOD OF REGULATION OF ITS RATES AND SERVICES	) CASE NO. 98-474

O R D E R

IT IS ORDERED that Louisville Gas and Electric Company ("LG&E") and Kentucky Utilities Company ("KU") shall file the original and 12 copies of the following information with the Commission with a copy to all parties of record no later than December 10, 1998. LG&E and KU shall furnish with each response the name of the witness who will be available to respond to questions concerning each item of information requested should a public hearing be scheduled.

1. Refer to Dr. Lowry's presentation, slide number 16, which corresponds to section 2.C.2 of the presentation entitled "'Kentucky-Style' Regulation." On this slide, Dr. Lowry states that KU's and LG&E's Retail Price Indices are 35 percent and 20 percent, respectively, below the electric industry.

a. Provide the name of each investor-owned utility included by Dr. Lowry in his Retail Price Index for the electric industry.

b. How were these investor-owned utilities selected?

c. Explain in detail how the Retail Price Index was calculated. If any adjustments were made to the survey data to facilitate the calculations, describe each adjustment in detail.

d. Does the Retail Price Index include all retail revenues, including any surcharges or automatic adjustment clauses? If not, identify those revenues excluded and explain the reason(s) for the exclusion.

e. Was the Retail Price Index based on only one year's information or a composite of several years? Explain the response, and identify the year or years used in the calculations.

f. This slide from Dr. Lowry's presentation refers to retail price index. In his testimony, however, Dr. Lowry refers to retail rate index. Given the regulated environment of KU and LG&E, is there any difference in using "price" versus "rate"? Explain the response.

g. Using the results of the Retail Price Index analysis, provide the relative ranking of KU and LG&E as compared to the other utilities included in the survey, lowest to highest.

2. On this same slide, Dr. Lowry states that KU's and LG&E's cost are the 4th and 12th lowest, respectively, of 105 surveyed investor-owned utilities. Dr. Lowry's prefiled testimony, at page 15, further explains that these rankings reflect the comparison of the average total cost incurred for power services by each company over the 1992-96 period to the cost predicted by the modeling used in Dr. Lowry's analysis.

a. Did Dr. Lowry survey 105 utilities as referenced in this slide or 104 utilities as referenced in his testimony at page 15? Explain this response.

b. Provide the names and rankings of the 15 lowest cost investor-owned utilities as determined by Dr. Lowry's analysis and an estimate of the stochastic error term for each of these utilities.

c. What are the predicted costs and actual costs for each of the 15 lowest cost utilities?

d. Explain why it is desirable to compare KU's or LG&E's average total cost incurred with the cost level predicted by a model.

e. Would it be appropriate to compare the average total cost incurred by each of the 105 surveyed utilities, and develop a ranking of lowest to highest? Explain the response.

f. Indicate KU's and LG&E's cost position in a ranking from lowest to highest based on a comparison of the average total cost incurred during 1992-96 for the 105 surveyed utilities.

3. Concerning the modeling used to evaluate the cost performance of KU and LG&E, explain in detail how the following factors were recognized in the modeling. If the factor was not recognized, explain in detail why the factor was excluded and why the exclusion was reasonable.

a. The utility was a combination gas and electric company.

b. Capital construction utilized a cash return on construction work in progress approach rather than capitalized interest under the allowance for funds used during construction approach.

c. The supply side resources mix included a significant amount of nuclear generation.

d. The supply side resources mix included a significant amount of hydro generation.

e. The utility was required to purchase power from other suppliers at a price set by the regulatory commission in excess of the utility's avoided costs.

4. Refer to the Regulated Return handout from the November 20, 1998 informal conference, KU's rate of return on common equity, columns (A) through (E). KU listed $39,523,000 in interest charges for the 12 months ending March 31, 1998. This amount includes interest on long-term debt, amortization of debt discount and expenses, amortization of loss on reacquired debt, other interest expenses, and allowance for borrowed funds used during construction. When determining the "PSC Method" rate of return on common equity, explain why the total interest charges were reflected in the calculation, rather than only using the interest on long-term debt.

5. KU's rate of return calculation includes the recognition of a capitalization adjustment relating to other investments (column D).

a. Explain why the total account balances for temporary cash investments, net non-utility plant, and other investments should be included as part of the capitalization adjustment.

b. Did KU exclude these items from capitalization in its last general rate case?

c. In the final Order in Case No. 8624,[1] the Commission included an interest synchronization adjustment in conjunction with changes recognized in KU's

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[1] Case No. 8624, General Adjustment of Electric Rates of Kentucky Utilities Company, final Order dated March 18, 1983.

capital structure and debt cost rates. Explain why KU did not include either an interest synchronization adjustment or an adjustment to preferred dividends when determining the rate of return under the "PSC Method" for the 12 months ending March 31, 1998.

6. Refer to the Regulated Return handout from the November 20, 1998 informal conference, KU's rate of return on common equity, columns (E) through (I). Also refer to KU's quarterly financial statements for the 12 months ending March 31, 1998. In the quarterly financial statements, KU is to separate its total company balance sheet and income statement accounts into the Kentucky retail jurisdictional and other jurisdictional components.

a. In its rate of return calculations, KU made a capital adjustment to remove other investments (column D) and removed non-Kentucky jurisdiction amounts (column F). Explain why either of these steps was necessary, since it would appear that the quarterly financial statements for March 31, 1998 already adjusted for these items.

b. Explain why KU's common equity for the Kentucky jurisdiction is approximately $1.1 million greater than the corresponding amount as shown on the March 31, 1998 quarterly balance sheet.

c. Explain why KU's net operating income for the Kentucky jurisdiction is approximately $11.8 million greater than the corresponding amount shown on the March 31, 1998 quarterly income statement.

d. Explain the differences in the approaches used to determine the Kentucky jurisdiction amounts for the March 31, 1998 quarterly financial statements and the rate of return calculations provided in the current proceeding.

7. Refer to the Regulated Return handout from the November 20, 1998 informal conference, LG&E's rate of return on common equity, columns (A) through (E). LG&E listed $38,614,000 in interest charges for the 12 months ending March 31, 1998. This amount includes interest on long-term debt, amortization of debt discount and expenses, amortization of loss on reacquired debt, and other interest expenses. When determining the "PSC Method" rate of return on common equity, explain why the total interest charges were reflected in the calculation, rather than only using the interest on long-term debt.

8. Refer to the Regulated Return handout from the November 20, 1998 informal conference, LG&E's rate of return on common equity, columns (A) through (E). Also refer to LG&E's quarterly financial statements for the 12 months ending March 31, 1998. In the quarterly financial statements, LG&E is to separate its total company balance sheet and income statement accounts into electric and gas operations.

a. Since LG&E's pending application is limited to electric operations, explain in detail why LG&E submitted a calculation of its rate of return on common equity on a total company basis, rather than on electric operations only.

b. Provide LG&E's earned rates of return on common equity, based on the March 31, 1998 financial information, for electric and gas operations separately. Include any supporting workpapers or calculations.

c. Explain why LG&E's per books, total company amounts shown for preferred stock and common equity do not agree with the corresponding amounts included in LG&E's March 31, 1998 quarterly financial statements.

d. Indicate when the first mortgage bond retirement occurred.

9. Explain why it is necessary to adjust LG&E's capitalization to reflect the 25 percent Trimble County disallowance, in light of LG&E's sale of that portion of the asset.

10. Identify the various deferred expenses charged off by LG&E in July 1997. State separately the amount of each deferred expense.

11. Provide the rate of return on common equity for the 12 months ending September 30, 1998 for the following:

a. KU total company basis.

b. KU Kentucky jurisdictional basis.

c. LG&E total company basis.

d. LG&E electric operations.

e. LG&E gas operations.

Include all supporting calculations, assumptions, and workpapers. If amounts used in these calculations do not agree with the corresponding account balances reported to the Commission in the September 30, 1998 quarterly financial statements, explain why there is a difference.

12. Refer to Dr. Lowry's testimony, page 13, line 19. Specify which customer classes are included in the "other retail" class. If the commercial class is not included in "other retail," explain why not.

13. Dr. Lowry's testimony, at page 9 of 23 of Exhibit MNL-2, states that only vertically-integrated, investor-owned firms are included in the sample. Were there any other characteristics or criteria used to select these 104 utilities, such as fuel mix or electric-only vs. combination gas and electric?

14. Dr. Lowry's testimony, at page 10 of 23 of Exhibit MNL-2, states that total cost is defined as the sum of total electric O&M expenses and electric capital service cost. Furthermore, the cost of capital is defined as the product of the size of the capital stock and the price of capital services.

a. Does total electric O&M expenses include salaries and wages (i.e., customer accounts, customer service, sales expense, and administrative and general)?

b. Explain how the price of capital services is determined and provide any formula used.

c. Where and how did Dr. Lowry account for interest expense in the price of capital?

15. Dr. Lowry's testimony, at page 17 of 23 of Exhibit MNL-2, defines a single dummy variable to account for those utilities that face unusually large DSM costs and that must purchase power from unregulated generators.

a. Why is there not a dummy variable for each of these conditions?

b. Does the variable equal unity if the utility faces either large DSM or unregulated purchases, or must both of these conditions hold for this variable to equal unity?

c. Explain why the model does not include other dummy variables to capture regional variations in factors such as climate and labor markets, and variations in fuel mix (i.e., hydro, nuclear, or other), product mix (i.e., electric only versus electric and gas), and the existence of incentive regulation.

16. Refer to Dr. Lowry's testimony, Exhibit MNL-2, page 19 of 23, Table 3.

a. Are the Average Values of Variables in the Benchmark Study expressed in natural logarithms? If not, explain why not.

b. Provide the Translog Cost Model, the data set, and all associated workpapers.

17. What estimation procedure was used to estimate the Translog Cost Model?

a. Provide the coefficient of determination.

b. Were the cost share equations associated with the model's inputs also estimated?

c. Were tests for heteroskedasticity or for serial correlation performed? If yes, which test was performed and what were the findings?

18. At page 22 of 23 of Exhibit MNL-2, Dr. Lowry states that one result of the cost performance evaluation is "the difference between each utility's average annual cost during the 1992-1996 period and the point prediction of same made by the econometric model."

a. Is the model predicting average cost or total cost (which is indicated in Table 3 on page 19 of 23 of Exhibit MNL-2)? If the dependent variable is total cost, explain how the average cost is obtained.

b. Are the sample means of the variables used to predict the average annual costs?

c. What are the values of the variables used to predict the average annual costs?

d. What are the null and alternate hypotheses and what test was actually used to test whether the cost incurred by each company was the same as the model's prediction (as stated on page 22 of 23 of Exhibit MNL-2)?

e. Dr. Lowry's testimony at page 21 of 23, Table 5 indicates that the T-statistics for the Percentage Differences between the Actual Total Cost and that predicted by the model are –8.73 and –11.97 for LG&E and KU respectively. Explain how these T-statistics were computed.

19. Explain why Dr. Lowry used a single-output model.

20. Some economists suggest that the distribution of electricity is more appropriately modeled as a multi-product industry. Would Dr. Lowry's results differ if he used a multi-output specification? (For example, a model that treats customers who require low voltage power (i.e., the residential and commercial classes) as one product and customers who require high voltage power (i.e., industrial and resale classes) as another product.) Provide comment on the differences in the two specifications and explain thoroughly the reason that a single-output model was chosen.

Done at Frankfort, Kentucky, this 2nd day of December, 1998.

PUBLIC SERVICE COMMISSION

B. J. Helton

For the Commission

ATTEST:

Helen C. Helton

Executive Director