COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

GENERAL ADJUSTMENT IN ELECTRIC RATES OF KENTUCKY POWER COMPANY	))	CASE NO. 9061

O R D E R

IT IS ORDERED that Kentucky Power Company ("KPC") shall file an original and 12 copies of the following information with the Commission by August 3, 1984, with a copy to all parties of record. Each copy of the data requested should be placed in a bound volume with each item tabbed. When a number of sheets are required for an item, each sheet should be appropriately indexed, for example, Item 1(a), Sheet 2 of 6. Include with each response the name of the witness who will be responsible for responding to questions relating to the information provided. Careful attention should be given to copied material to insure that it is legible. Where information requested herein has been provided along with the original application, in the format requested herein, reference may be made to the specific location of said information in responding to this information request. When applicable, the information requested herein should be provided for total company operations and jurisdictional operations, separately. If neither the requested information nor a motion for an extension of time is filed by the stated date, the case may be dismissed.

ISSUE: TRANSMISSION LINE AFUDC

1a. Provide copies of the minutes of the board of director's meeting(s) in which the September 1984, in-service date was established and the decision was made to request the continued accrual of AFUDC beyond that date.

b. Provide a comparison of the company's projected earnings for calendar year 1984 both with and without the requested accounting treatment.

c. Indicate the date by which Kentucky Power hopes to receive a ruling on this matter.

ISSUE: PRO FORMA ADJUSTMENTS

2a. Section V, Workpaper S-2, page 5 of the application shows a monthly wage and salary increase of $70,294 granted in February 1984. Is this solely the result of the 5 percent general increase granted on February 1, 1984?

b. Are the smaller, irregular increases that occurred throughout the test year due to the merit increases granted Kentucky Power's employees?

3a. Provide the 1984 rates and number of employees covered by the company's medical plan, the cost of which is shown in Section V, Workpaper S-2, page 6 of the application. Provide a comparison of those rates with the rates in effect at the beginning of the test year.

b. Provide the name of the insurance carrier of the company's medical plan along with a complete description of the selection process Kentucky Power uses in selecting its insurance carriers.

4a. Section V, Workpaper S-2, page 12 of the application shows the company's post-test-year wage and salary increases. Indicate which employee groups were affected by the May 1984, increase of $60,626 and the percentage increase for each group.

b. Provide the assumptions and bases involved in projecting merit pay increases for the last 6 months of 1984.

5. Provide a detailed explanation of how charitable contributions, such as those in the amount of $30,704 made by the company during the test year, improve or increase the level of electric service provided to Kentucky Power's customers.

6a. Exhibit CRB-4 provides a comparison of actual and normalized Big Sandy plant maintenance expense which shows periodic changes in the amount of normalized monthly expense. What factors cause the normalized monthly expense to change and how frequently can these changes be made?

b. Provide a summary of the analysis used to develop the 1984 normalized monthly expense of $868,000.

7a. Exhibit HAB-1, page 3 of 9 shows the actual Big Sandy maintenance expense for the years 1970-1983 adjusted to 1983 dollar levels. Explain why it would be improper to use the average of these amounts as the appropriate expense for rate-making purposes.

b. Explain in detail the ways in which Mr. Bissinger's regression analysis demonstrates or quantifies the impact the age of the Kentucky Power units has on the results of his regression analysis.

c. Provide the actual amounts of Big Sandy plant maintenance expense incurred in the months of April to June 1984.

8a. Provide a detailed analysis, including invoices, of the total rate case expense of $185,163 incurred for Case No. 8734. At minimum, this should show the amounts incurred for each type of professional service, i.e., legal, accounting, engineering, etc., with a further breakdown to show how much was paid to each firm or individual employed by Kentucky Power in connection with that case.

b. Describe and explain the factors associated with Case No. 8734 which caused the actual rate case expense to so greatly exceed the estimated expense of $100,000.

9a. Explain how 25 percent for generation assigned to system sales was determined for use in the system sales profit adjustment shown in Section V, Workpaper S-2, page 45.

b. Provide the total number of employees that will be used to operate Rockport Unit No. 1 and the related O&M expenses listed in the same categories shown in Section V, Workpaper S-2, page 46 for Kentucky Power's share of Rockport O&M expenses.

10. Provide the derivation of the annual maintenance expense of $300,000 projected for the Hanging Rock/Jefferson 765 KV line.

ISSUE: TEST YEAR EXPENSES

11a. Provide the amounts and a description of all expenses incurred during the test year for payments to AEP.

b. Provide the amount of the tax loss incurred by AEP during the test year and calendar year 1983 and the amount of the losses allocated to Kentucky Power in each of those years.

12a. Sheet 3 of 25 in Item 25b of the response to the Commission's Order dated June 6, 1984, shows that Kentucky Power made payments of $11,181 during the test year to the Committee for Energy Awareness. For what purposes were these payments made and what type of work/research does this organization perform?

b. Provide the amount of payments, if any, made to the Committee for Energy Awareness by AEP.

ISSUE: EMBEDDED COST OF SERVICE

13. Provide a copy of all applicable workpapers and documentation used to develop the allocation factors for the 12CP class cost of service study for the test year ended March 31, 1984.

14. Provide the workpapers of the minimum system study used to classify certain distribution costs as demand-related or customer-related.

ISSUE: TIME-OF-DATE RATES

15. Provide the workpapers that support the calculation of the demand and energy charges for the CIP-TOD rate.

16. Provide the workpapers that support the calculation of all rate elements in the GS-LM-TOD tariff.

17. Provide the workpapers that support the calculation of all rate elements in the RS-LM-TOD tariff.

18. Provide a list of the load management devices that Kentucky Power considers acceptable under the provisions of the RS-LM-TOD and GS-LM-TOD tariffs.

19. On page 20 of his testimony, Mr. Bethel states, "...experience with TOD rates across the AEP system has led to

the conclusion that the on-peak period should be reduced from 7 AM - 11 PM to 7 AM - 10 PM." Specify in further detail what considerations led to this conclusion, and provide available support for this change.

ISSUE: TIME DIFFERENTIATED EMBEDDED COST OF SERVICE

20. The methodologies used to develop on-peak and off-peak allocation factors in this study were apparently chosen from a greater number of methodologies utilized in the comparable study in Case No. 8734. Provide any reasons or justifications not already discussed in the testimony in Case No. 9061 for the methodologies chosen in the current case.

21. If methodologies other than those presented in testimony were employed to derive peak and off-peak allocation factors, identify these methodologies and provide the resulting assignments of on-peak and off-peak cost responsibilities.

22. Provide a copy of all applicable workpapers and documentation used to develop the allocation factors for the TOD accounting cost of service study presented by Mr. Berndt.

23. Provide the class rates of return that result from use of the following on peak percentage factors for demand related production costs:

a. 99.43 percent (from loss of load probability method).

b. 55.80 percent (from full availability dispatch method.)

ISSUE: INTERRUPTIBLE SERVICE TARIFF

24. Page 40 of the Order in Case No. 8734 states with regard to the interruptible rate that Kentucky Power "should report on its efforts to determine the interest in the tariff and consider

proposing modifications that are cost-justified and which may promote a wider use of the tariff." Please discuss the Company's efforts to determine the interest and any modifications to the tariff that were considered.

ISSUE: MARGINAL COST-OF-SERVICE STUDY

25. Provide a copy of all workpapers used to develop the marginal cost-of-service study.

ISSUE: PRICE ELASTICITY

26. Were any price elasticity values used to adjust the billing determinants which were used in determining the rates as specified in the Company's filing or in the notice given to customers? If so, provide all associated workpapers.

27. Was the price elasticity analysis provided by Mr. Jahn used in any way to adjust revenues in this case? If so, provide all associated workpapers.

28. With respect to Exhibit LRJ-1, provide:

a. A description of the variables used in the regression models.

b. All data used to estimate the models, the source of all such data, and any workpapers that were used to develop the data.

c. A list and narrative description of all other independent variables considered for use in each of the models.

d. All alternative model specifications examined by the company, and a narrative description and relevant statistical results indicating why the model was not used by the company.

e. For the models used, the correlation matrix for each.

f. Computer output from any regression analysis conducted on elasticity models with different specifications from those presented in this exhibit.

g. For each model used, correlograms or partial regression leverage plots of the residuals.

h. An explanation and justification for inclusion of: 1) the binary variable in the commercial model; 2) the binary variable in the industrial model; 3) the use of marginal price variable in the residential model, while the commercial and industrial models contain average price variables.

29. The estimate of residential price elasticity presented in Case No. 8734, General Adjustments in Electric Rates of Kentucky Power Company, was -0.628. In this case, the estimate is -0.482. Provide an explanation for the difference in these estimates. Provide an explanation for the difference in R^2 between these two models.

30. Statistical point estimates of -0.482, -.340, and -0.329 have been presented for, respectively, residential, commercial and industrial price elasticities. What are the probabilities that the actual parameter values will be equal to these estimates?

31. Provide the upper and lower bounds of a 95 percent confidence interval for price elasticity estimates in the three models. Provide the values of curtailment (Column 4, pp. 1-4 of Exhibit LRJ-2) associated with these upper and lower bounds, given the proposed rate increase.

ISSUE: FUEL COST SYNCHRONIZATION

32. Provide a schedule to show seperately by month and for the test year ended December 31, 1983 the actual fuel revenues recovered:

a. through the base rates, and

b. through the monthly fuel adjustment clauses.

33. Provide a reconcilation of actual fuel expenses for the test year with the actual fuel revenues recovered during the test year requested in question no. 1 above.

34. Refer to Section V, Workpaper S-5, page 3 and Section V, Schedule 6. What fuel expenses are included in the Fuel Expense Deferred account 501.99?

ISSUE: COAL INVENTORY

35. Provide a copy of all work papers showing the calculation of the additional KWH generated without curtailment in Exhibit CRB-3, line 2.

36. Provide a copy of all work papers showing how the BTU per pound of coal burned during the test year was ascertained in Exhibit CRB-3, line 4.

37. Does the adjustment to eliminate the effect of curtailments in Exhibit CRB-2 simply adjust the burn rate up to what would have been consumed assuming the unit was operated at full capacity for 587 hours in the case of Big Sandy unit #1 and 478 hours for Big Sandy unit #2?

38. Would it not be more accurate (reduce rounding error) to use total tons consumed and total number of days per Item 45C, Sheet 2 of 7 of the Commission's order dated June 6, 1984 instead

of monthly averages to calculate the "operating" days burn in Exhibit CRB-2?

a. Provide a recalculation of Exhibits CRB-2 and CRB-3 and Section V, Workpaper S-1, page 3 using total tons consumed and total number of days for the 13 month period (March 1, 1983 - March 31, 1984) as shown in response to Item 45C, Sheet 2 of 7 of the Commission's Order dated June 6, 1984, instead of monthly averages for that period.

39. Provide a graph of Kentucky Power's monthly ending coal inventory levels including coal reciepts (in tons) and coal burns (in tons) for the years 1979 to the present.

40. Did Mr. Brancato consider the relevant costs associated with the number of orders and/or the size of the orders in its coal inventory analysis for the AEP system and/or Kentucky Power?

41. Couldn't coal inventories be relocated, if necessary, during the latter stages of a long UMW strike as a solution to the problem brought up by Mr. Brancato in lines 6 through 23, page 11, of his testimony?

42. Provide a copy of the coal inventory model formula or program utilized by the computer to arrive at the results given in Exhibits FAB-2, pages 1 through 33, and FAB-4, pages 1 through 33.

43. Provide a copy of the work papers, studies, reports, etc. used to arrive at the following imput parameters for the AEP system described in Mr. Brancuta's testimony on pages 13 and 14.

a. projected burn for the AEP system of 113,894 tons per day,

b. average cost per ton of coal in inventory for the AEP system of $46.41,

c. the carrying cost for the AEP system of 18.23%,

d. emergency cost of purchase power of 68 mills per KWH.

44. Provide the work papers showing how Mr. Brancato equates 105 days supply on a "calendar" day basis with 85 day supply on an "operating" day basis.

45. Provide the work papers showing how Mr. Brancato arrived at the recommended coal inventory level of 754,425 tons based on:

a. 105 calendar days supply, and

b. 85 operating days supply.

ISSUE: THE APPROPRIATE CAPITAL STRUCTURE FOR KENTUCKY POWER

45. Reconcile the long-term debt figure in column (E), line 11, of Workpaper S-1, page 8, with the long-term debt figure in column (A), line 1, of Workpaper S-1, page 2.

46. When does Kentucky Power plan to issue the $4,715,000 and $88,908,000 of long-term debt shown in columns (C) and (D), line 1, of Workpaper S-1, page 2?

a. When does Kentucky Power expect to receive the $2,539,000 and $47,874,000 of common equity investment from AEP, shown in columns (C) and (D), line 3?

ISSUE: THE APPROPRIATE RATE OF RETURN ON COMMON EQUITY FOR KENTUCKY POWER

47. Provide copies of Dr. Giordano's testimony, presented in the 6 rate cases before the Pennsylvania Commission, as referred to on lines 23 through 24, page 2 of his testimony.

48. Provide copies of the reports from which the growth rates, presented on Schedule 3, page 1 of Dr. Giodano's testimony, were taken.

49. Explain why a 2.7 times interest coverage ratio, referred to on line 10, page 5 of Mr. Maloney's testimony, is minimally appropriate.

50. What are the restrictions on retained earnings, referred to on lines 21 through 22, page 7 of Mr. Maloney's testimony?

51. Provide a copy of Kentucky Power's mortgage indenture, referred to on line 23, page 4 of Mr. Maloney's testimony.

ISSUE: TARIFF CHANGES

52. Regarding the requested change in the Q.P. tariff of the monthly billing demand from a 30 minute integrated peak to a 15 minute integrated peak, what effect would this change have on the KW billing deteriments? If possible, provide the effect of this change on the normalized revenues and the proposed revenues.

ISSUE: ADJUSTMENTS FOR ROCKPORT UNIT 1

53. Furnish a copy of the depreciation study which shows the justification of the 3.52 percent depreciation rate for Rockport production plant.

54. Will the 1300 MW spare turbine generator and the spare heat exchange equipment be stored at the Rockport facility and be held for the exclusive use of the Rockport plant?

a. Does the costs associated with the spare turbine generator and spare heat exchange equipment include several component items? If so, please list the individual components.

b. Explain the circumstances which would require a spare turbine and heat exchange equipment to be needed.

c. Provide all studies and memoranda which contain a cost/benefit analysis or any other justification for maintaining a spare turbine and heat exchange equipment.

ISSUE: TEST YEAR EXPENSES

55. In reference to section v, workpaper S-2, p. 39, provide an itemized breakdown of big sandy maintenance items that totaled $9,812,455 during the test year.

Done at Frankfort, Kentucky, this 20th day of July, 1984.

PUBLIC SERVICE COMMISSION

Richard D. Heman Jr.
For the Commission

ATTEST:

Secretary