

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

DEMAND SIDE MANAGEMENT PROGRAMS)	
AND COST RECOVERY FILING FOR DEMAND)	CASE NO. 99-414
SIDE MANAGEMENT PROGRAMS BY THE)	
UNION LIGHT, HEAT AND POWER COMPANY)	

O R D E R

IT IS ORDERED that The Union Light, Heat and Power Company ("ULH&P") shall file with the Commission the original and 8 copies of the following information, with a copy to all parties of record. The information requested herein is due within 15 days of the date of this Order. 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 person who will be responsible for responding to questions relating to the information provided. Careful attention should be given to copied material to ensure that it is legible. Where information requested herein has been previously provided, 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.

1. Refer to Section III of the application, page 6. The Joint Applicants state that the Collaborative is not requesting continuation of residential revenue decoupling.

a. Explain why the Collaborative is not requesting the continuation of residential revenue decoupling. Include all studies and analyses performed that support this position.

b. Identify the methodology the Collaborative is proposing to use in place of the residential revenue decoupling. Provide a detailed explanation of how this methodology will work and why this method is a reasonable alternative to decoupling.

c. If the residential revenue decoupling is not continued, the Collaborative will have to develop a method to determine the energy savings experienced by participants. Identify the method the Collaborative anticipates it will use and explain in detail how the Collaborative plans to perform this type of evaluation.

2. In its December 1, 1995 Order in Case No. 95-312¹ the Commission stated, "Therefore, ULH&P should perform a study which compares the electricity and gas usage patterns of DSM program participants with those of non-participating customers . . . The overall results of the study should be presented to the Commission at the end of the current plan in 1999."² Exhibit 2 of the application, which is a one-page printout showing an "ordinary least squares" recalculation of the growth factors for electric customers and gas customers, is identified as the study required by the December 1, 1995 Order.

¹ Case No. 95-312, The Joint Application Pursuant to 1994 House Bill No. 501 for the Approval of the Principles of Agreement, Demand Side Management, The Union Light, Heat and Power Company, and for Authority for The Union Light, Heat and Power Company to Implement Various Tariffs to Recover Costs, Lost Revenues and Receive Incentives Associated with Demand Side Management Programs.

² Case No. 95-312, Order dated December 1, 1995 at 6.

a. Provide an interpretation of the information presented in Exhibit 2 which compares the growth factors for electric customers and gas customers with the corresponding factors used in each year the decoupling mechanism has been in use.

b. Explain in detail how Exhibit 2 of the application satisfies the Commission's order that ULH&P perform a study which compares the electricity and gas usage patterns of demand side management ("DSM") program participants with those of non-participants.

c. Provide in conjunction with the review of the first 3 years of the DSM plan a study that complies with the Commission's December 1, 1995 Order in Case No. 95-312.

3. Refer to Exhibit 1 of the application, the "Evaluation of the Low-Income Conservation and Energy Education Program" ("program evaluation") prepared by Quantitative Economic Consulting, LLC ("Quantec").

a. Explain in detail why the program evaluation did not examine the effectiveness of the DSM programs separately.

b. Were the Joint Applicants and Quantec aware that end-of-pilot program evaluations performed for the Louisville Gas and Electric Company ("LG&E") and Kentucky Power Company ("AEP")³ reviewed the effectiveness of each DSM program separately? If yes, explain why Quantec performed the program evaluation on a combined basis, rather than separately, by program.

c. Indicate which members of the ULH&P Collaborative are also members of the DSM Collaboratives at LG&E or AEP.

³ Doing business as American Electric Power.

d. Provide the results of the following DSM cost/benefit tests for each DSM program for the evaluation period. The test results are needed only for those programs in place as of the end of the pilot period. Include all supporting calculations, assumptions, and workpapers.

- (1) Total Resource Cost ("TRC").
- (2) Rate Impact Measure ("RIM").
- (3) Utility Cost.
- (4) Participant.

4. Explain why traditional DSM cost/benefit tests were not included in the program evaluation prepared by Quantec.

5. Explain why the Quantec program evaluation does not review the commercial programs listed in Exhibit 6a of the application.

6. Refer to page III-1 of the Quantec program evaluation, "Program Regulatory Background."

a. Explain why there is no mention of KRS 278.285 in this discussion.

b. Explain in detail the basis and source of the following statements: "The Public Service Commission (PSC) wanted a low-income program designed and included in the package. Further, the PSC and other stakeholders decided that DSM programs needed to be designed with the assistance of local parties in a collaborative setting."

c. Was the Commission Staff a member of the initial Collaborative, or an observer of the Collaborative? Explain the response.

7. Refer to page IV-7 of the Quantec program evaluation, Table 7. State the annual energy savings by participant category as percentages of the most recent 12-month level of energy sales.

8. Refer to pages V-2 and V-3 of the Quantec program evaluation. Describe in detail the actions the Joint Applicants intend to undertake in response to the recommendations made by Quantec.

9. Explain why the Joint Applicants believe it is appropriate to include an adjustment to correct for the failure to reconcile the decoupler adjustment component of the 1998 Rider in the 1999 filing. Also, explain why this decoupler adjustment was omitted from the appropriate prior filing.

10. Refer to Exhibit 3 of the application, the proposed residential DSM programs for 2000 and 2001. Based on the estimated costs and benefits for each program, provide the TRC, RIM, Utility Cost, and Participant test results for each program. Include all supporting calculations, assumptions, and workpapers.

11. In the Energy Savings Analysis, explain how C is specified, i.e. - linear, logarithms, etc.

12. Given that the data is of a time-series nature, explain why an estimation method was not employed that would correct for the effects of autocorrelated errors.

13. Given the low coefficients of determination, which are displayed in Tables 4 and 5 (0.4282 and 0.5862), was any consideration given to specifying and estimating other models? If no, explain in detail why such consideration was not given.

14. As defined on pages IV-4 and IV-5, HEATMEAS and COOLMEAS are defined in precisely the same manner. Explain whether these variables are, in fact,

capturing the same measure. If so, explain why both are included both in the Electric regression equation.

15. Table 8 contains the Electric Savings Estimates for Alternative End Use Combinations. Explain how the various types are defined.

16. Exhibit 2 contains the Recalculation of the Growth Factors for Electric and Gas, presumably in logarithms. Given this, answer the following:

a. For the Electric equation:

(1) Is the predicted equation given by:

$$\text{Log (Elecactual)} = 9.1429 + 0.0081566 \cdot \log(\text{TIME}),$$

$$\text{equivalent to: Elecactual} = 9.1429 \cdot \text{TIME}^{0.00816}?$$

If not, then explain.

(2) What values are 1988 – 1998 assigned in the predicted equation? Submit the fitted equations for each of these years.

(3) Assuming that $P < \text{SDECS} = 6 > (\text{EXP}(0.0081566) - 1)$, is the probability of an occurrence, what is SDECS?

b. In the Gasactual model,

(1) What is the interpretation of the negatively – signed coefficient estimate on TIME, the independent variable?

(2) Does $P < \text{SDECS} = 6 > (\text{EXP}(-0.021348) - 1) = -0.021122$ mean there is a negative probability of SDEC=6 occurring? If not, then explain.

Done at Frankfort, Kentucky, this 4th day of February, 2000.

By the Commission

ATTEST:

Executive Director