## **COMMONWEALTH OF KENTUCKY**

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#### BEFORE THE PUBLIC SERVICE COMMISSION

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In the Matter of:

| AN ADJUSTMENT OF THE GAS AND | ) |
|------------------------------|---|
| ELECTRIC RATES, TERMS AND    | ) |
| CONDITIONS OF LOUISVILLE GAS | ) |
| AND ELECTRIC COMPANY         | í |

CASE NO. 2003-00433

### KENTUCKY DIVISION OF ENERGY'S REQUEST FOR INFORMATION TO LOUISVILLE GAS AND ELECTRIC COMPANY

- 1. Refer to Question No. AG 1-251. Witness Steven Seelye lists several factors that should be considered in rate design the cost of service study, gradualism, rate continuity, and customer acceptance.
- a. Would Mr. Seelye agree that it is also beneficial to design rates to promote better alignment with least-cost planning, i.e., integrated resource planning?
- b. Mr. Seelye asserts: "Cost based rates reduce or eliminate inter- and intraclass subsidies. Cost based rates send the appropriate price signals to customers and thus cause them to act in a manner that creates the most efficient use of resources."

Consider, for example, the proposed increase in the residential monthly customer charge from \$3.31 in the old Residential Rate to \$9.00 in the new Residential Service rate. This increase (of 172%) reflects a shifting of approximately \$23 million worth of cost recovery from the energy component to the customer component per year. Seelye Exhibit 29, page 1 of 25. How, if at all, are residential customers expected to respond to this price signal?

- How is this increase expected to cause residential customers to change c. their actions in a manner that creates a more efficient use of resources?
- Residential customers have no practical alternative electric suppliers from d. which to choose. In other words, a competitive market for electric services currently does not exist in this sector. What exists in Kentucky is a regulated monopoly. If, instead of raising the customer charge, LG&E were to reduce the monthly customer charge from \$3.31 to zero and recover the revenue entirely from energy charges, how does Mr. Seelye project that residential customers' behavior would change, if at all?
- The Prime Group provides individual customer profitability analyses to utilities 2. operating in deregulated markets, and offers to provide answers to the following questions:
  - Who are your most profitable customers?
  - Are all of your customers contributing to margins or are margins on some customers negative?
  - Which customers are your competitors most likely to target?
- How can you protect revenues from your core business in a retail choice environment?" Web site of The Prime Group, LLC.

- In a regulated market such as Kentucky's, is it possible or likely that wide a. variations in margins between different individual customers in the same class have persisted for years or even decades?
- To LG&E's knowledge, has any residential or small commercial customer b. ever tried to make a case that her own individual electric rate should be lowered because she has been contributing far more revenue than it costs the utility to serve her? If so, how far did her case get?

- c. As a senior consultant for the Prime Group, LLC, does Mr. Seelye believe that in a regulated market such as Kentucky's, intra-class subsidies will ever be eliminated?
- d. Regardless of the answer to part (c) above, what rate design policies, if any, could lead to the significant reduction of intra-class subsidies?
- 3. Refer to Mr. Seelye's direct testimony, pp. 63-64. Mr. Seelye discusses the reasons for instituting declining or inclining block rates and concludes, "If load factors within a customer class increase with greater usage, then a declining-block rate structure can be supported. However if load factors within a customer class decrease in relation to greater usage, then an inverted block rate structure can be supported."
- a. Please discuss the assumptions about customer behavior upon which this conclusion is based.
- b. Consider a typical distribution of customers from low-usage to high-usage. Assume that the high-usage customers have, on average, more favorable (i.e., higher) load factors than the low-usage customers. Assume there occurs a change in the rate structure that provides an incentive for virtually all customers to increase their energy use. Is there any basis for the assumption that if the average customer's energy use increases, his or her load factor will also increase? If so, what is that basis?
- c. When a customer adjusts energy use in response to a change in the rate structure, isn't it true that the effects on the customer's load shape will depend on the energy-related technologies and options that are available and known to the customer at the time?
- 4. Refer to Seelye Exhibit 29, page 1 of 25. The customers on the Residential Prepaid Metering (RPM) rate will see their monthly fixed charge increase from \$5.31 to \$11.00.

Does LG&E project that there will be a significant decrease in the number of customers choosing the prepaid meter option?

5. Refer to Seelye Exhibit 29, page 1 of 25. KDOE performed the following calculations related to the two residential rates shown.

Residential Rate R: 222,287,083/3,842,544,916 kWh = 5.78 cents/kWh.

Prepaid Metering Pilot Rate RPP: \$314,982/5,164,866 kWh = 6.10 cents/kWh.

Proposed RS Rate: \$248,384,599/3,842,544,916 kWh = 6.46 cents/kWh.

Proposed RPM Rate (prepaid metering): \$345,104/5,164,866 kWh = 6.68 cents/kWh. Under both the existing rates and the proposed rates, prepaid metering customers pay a somewhat higher average cost per kWh than the typical residential customer.

- a. Does LG&E believe that prepaid metering is beneficial to the electric system as a whole?
  - b. Is LG&E trying to promote the growth of prepaid metering?
- c. If the answer to part (a) or (b) is yes, why is LG&E proposing tariffs that include an economic disincentive for customers to switch to the prepaid metering tariff?
- 6. Why isn't the RPM energy charge higher in summer and lower in winter, following the pattern of the RS rate?
- 7. Refer to Mr. Seelye's direct testimony, page 69, line 18 regarding the General Service (GS) rate. Would Mr. Seelye acknowledge that increasing the customer charges much more than the energy charges in fact constitutes a proposed change in the rate structure?
- 8. Refer to Mr. Seelye's direct testimony, page 70, lines 6-13, where he discusses the economic desirability of three-part rates (customer charge, demand charge and energy charge).

- a. Please provide any bid sheets, calculations, analyses, or working papers that relate to the conclusion about the prohibitive costs of various kinds of advanced metering equipment.
- b. What would Mr. Seelye's response be to the following assertion: "Ideally, in order to provide the most direct linkage between the marginal costs faced by the utility and the prices faced by customers, all customers should be served under real-time pricing mechanisms?"
- 9. Did the Prime Group give serious consideration to any of the following rate structure options for the residential customer class?
  - a. Demand charges
  - b. Time of use rates
  - c. Real-time pricing mechanisms

If so, please provide any analyses, working papers or notes describing these considerations. If not, please explain why not.

- 10. Did the Prime Group give serious consideration to any of the following rate structure options for the small commercial customer class?
  - a. Strongly inverted block rates
  - b. Demand charges
  - c. Time of use rates
  - d. Real-time pricing mechanisms

If so, please provide any analyses, working papers or notes describing these considerations. If not, please explain why not.

11. Did the Prime Group give serious consideration to the use of real-time pricing mechanisms for the large commercial and industrial customer classes? If so, please provide any

analyses, working papers or notes describing these considerations. If not, please explain why

- 12. Refer to Mr. Seelye's direct testimony, page 71, lines 17-21. LG&E is proposing to raise the minimum demand to be eligible for the Large Power Industrial Time-of-Day (LP-TOD) Rate from 150 kW to 2,000 kW.
- a. In view of the fact that time-of-day rates constitute a way to convey marginal cost information to customers, and thereby better align customer incentives with utility incentives, why is LG&E restricting the eligibility requirements for the LP-TOD Rate?
- b. Please provide an estimate of the number of customers that would have become ineligible for the LP-TOD Rate if such customers had not been grandfathered in.
- c. Please provide an estimate of the total demand and annual energy use represented by the set of customers specified in part (b) above.
- 13. Refer to Mr. Seelye's direct testimony, page 75, lines 7-16, where he discusses the methodology he used to determine LG&E's avoided capacity cost and the level of the Curtailable Service Rider (CSR) credit.
- a. Was this newly-calculated avoided cost applied to the SQF and LQF tariffs, the two proposed tariffs that relate to small- and large-capacity cogeneration facilities, respectively?
- b. If so, why do these two proposed tariffs appear to be substantially identical to the existing ones?
  - c. If not, why not?

14. KRS 278.285, the statute that applies to demand-side management (DSM) programs, contains the following provisions in Section (3):

The commission shall assign the cost of demand-side management programs only to the class or classes of customers which benefit from the programs. The commission shall allow individual industrial customers with energy intensive processes to implement cost-effective energy efficiency measures in lieu of measures approved as part of the utility's demand-side management programs if the alternative measures by these customers are not subsidized by other customer classes. Such individual industrial customers shall not be assigned the cost of demand-side management programs.

Tariff Sheet No. 71, however, which describes the Demand-Side Management Cost Recovery Mechanism (DSMRM), addresses the opt-out provision as follows: "Customers served under Industrial Power Rate LP and Industrial Power Time-of-Day Rate LP-TOD who elect not to participate in a demand-side management program hereunder shall not be assessed a charge pursuant to this mechanism." The clear implication is that *any* industrial customer may opt out of the DSMRM at will. The tariff sheet language does not mention the fact that by statute, the opt-out provision is available only to industrial customers "with energy intensive processes" and which have implemented or committed to implement "cost-effective energy efficiency measures." KDOE clearly identified this problem during the company's most recent integrated resource planning (IRP) case, Case No. 2002-00367.

Why didn't LG&E take the opportunity of this rate case to correct the tariff sheet language to conform to the requirements of KRS 278.285(3) as cited above?

15. In view of the fact that LG&E projects the need for additional generating capacity, why didn't LG&E propose strongly inverted block rates, which would provide an economic incentive for high-consuming customers to reduce their energy use?

- 16. In view of the fact that LG&E projects the need for additional generating capacity, why didn't LG&E propose to use more real-time pricing mechanisms, which would more closely couple customer incentives to the ever-changing cost situation faced by the utility?
- 17. In view of the fact that LG&E projects the need for additional generating capacity, why didn't LG&E propose tariffs that would encourage more cogeneration by commercial and industrial customers?
- 18. By how much would the system load factor need to increase to eliminate the need for those combustion turbines that LG&E has planned but not yet started to construct?

Respectfully submitted,

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# **CERTIFICATE OF SERVICE**

I hereby certify that on the \_\_\_\_\_\_ day of March, 2004, a true and accurate copy of the foregoing KENTUCKY DIVISION OF ENERGY'S FIRST DATA REQUEST TO LOUISVILLE GAS AND ELECTRIC COMPANY was mailed, postage pre-paid to the following:

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