COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE JOINT INTEGRATED RESOURCE PLAN)
OF LOUISVILLE GAS AND ELECTRIC COMPANY	CASE NO.
AND KENTUCKY UTILITIES COMPANY	2002-00367

FIRST DATA REQUEST OF COMMISSION STAFF TO LOUISVILLE GAS AND ELECTRIC COMPANY AND KENTUCKY UTILITIES COMPANY

Louisville Gas and Electric Company (LG&E) and Kentucky Utilities Company (KU), pursuant to Administrative Regulation 807 KAR 5:001, shall file with the Commission the original and 7 copies of the following information, with a copy to all parties of record. The information requested herein is due on or before January 10, 2003. 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 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.

1. Refer to Volume I, Section 5 of the Application, pages 5-8. Explain why customer usage for KUs RS and FERS classes is modeled differently from other

classes. Explain whether this difference is related to KU s use of the REEPS model for these two classes.

- 2. Refer to Volume I, Section 5 of the Application, pages 5-17. Explain why average growth for the combined companies winter peak demand for 2002-2006 is 4.8 percent, more than double the combined summer peak demand for the period. Identify the extent to which growth in KU's FERS class is responsible for this winter peak demand growth.
- 3. Refer to Volume I, Section 5 of the Application, pages 5-38. Provide the status of the RFP for purchased power issued by the companies in August 2002. If a decision on a purchased power option has not been made, indicate when such a decision will be made.
- 4. Refer to Volume I, Section 5 of the Application, pages 5-40. LG&E and KU state, As a final step, a Request For Proposal (RFP) will be developed and issued for an administrator/contractor for the program. Marketing representatives for the Companies would be trained on the new customer offerings. The Companies plan to develop a process to track data related to the program.
- a. Indicate the number of employees by company whose job function or job title is Marketing Representative.
- b. Explain in detail the process that will be used for tracking data related to the program.
- c. If a plan has been completed, what relevant information concerning this DSM program would the companies expect to be collected, entered and maintained in association with the Residential New Construction program (RNC) system?

- d. If a plan has not been completed, what relevant information concerning this DSM program would the companies expect to be collected, entered and maintained for the RNC to accurately track program participants, peak savings, etc.?
 - e. Where will the RNC program data be stored?
- f. Referring to part (e) above, has Information Technologies been advised and made aware of this planned project? If the answer is yes, provide Information Technologies determination of resource requirements. If the answer is no, are you considering purchasing a marketing database from an outside vendor?
- 5. Refer to Volume I, Section 5 of the Application, pages 5-41. Describe the extent to which increasing competition in wholesale electric markets is a source of uncertainty in the development of the companies IRP.
- 6. Volume I, Section 5, pages 5-44 of the Application refers to aging generating units at Tyrone and Green River and aging combustion turbines of both KU and LG&E. The companies state that the economics surrounding the continued operation of these units are periodically reviewed to ensure the efficiency of the overall system. Provide the results, along with a narrative description, of the most recent review. The narrative description should point out any projections as to the retirement dates of any of the units.
- 7. Refer to Volume I, Section 5 of the Application, pages 5-46. Identify and describe all aspects of the IRP that have been impacted in some manner by Midwest Independent System Operator (MISO) becoming operational.
- 8. Refer to Volume I, Section 5 of the Application, pages 5-50. Provide brief summaries of the companies SMD NOPR comments submitted to comply with the

November 15, 2002 deadline and any reply comments that will be submitted per the December 20, 2002 deadline.

- 9. Volume I, Section 5, pages 5-50 of the Application, refers to the fact that the impact of SMD on the Companies overall business is still being assessed. While the ultimate ruling on the SMD NOPR is subject to change, describe the companies view of the Federal Energy Regulatory Commission's (FERC) incentives relating to additional transmission capacity. In the description, identify any capacity constraints that are potential problems related to serving native load.
- 10. Refer to Volume I, Section 6 of the Application, pages 6-2. Provide a description of OVECs generating units, including an assessment of their remaining useful operating lives.
- 11. Refer to Volume I, Section 6 of the Application, pages 6-24, Table 6. (1)-(j), Changes in Curtailable / Interruptible Loads.
- a. Explain in detail why LG&E customers are leaving this rate schedule.
- b. Explain in detail why it appears that KU has been successful in adding customers to the Curtailable / Interruptible rate.
- 12. Refer to Volume I, Section 6 of the Application, pages 6-25. Provide any memoranda, reports, minutes of meetings, etc. pertaining to the work being done by LG&E and KU and the partners identified as working together on an Energy Star awareness campaign.
- 13. Refer to Volume I, Section 8 of the Application, pages 8-86. Concerning KU s Rate Schedule CWH (Combination Off-Peak Water Heating):

- a. Provide the actual number of residential and commercial customers using this rate for the calendar years 1996 through 2001 and for the 12 months ending October 31, 2002. Also provide the average cost to the customer for either a plumber or electrician to place the water heating equipment on a separate meter.
- b. Provide the number of forecasted CWH program participants entering and leaving this rate for both residential and commercial customers for years 1996 through 2008.
- 14. Refer to Volume I, Section 8 of the Application, pages 8-86. Concerning KU s Rate Schedule CSR (Curtailable Service Rider):
- a. Provide the actual number of industrial customers using this rate for the calendar years 1996 through 2001 and the 12 months ending October 31, 2002.
- b. Provide the forecasted number of CSR program participants entering and leaving this rate for years 1996 through 2008.
- 15. Refer to Volume I, Section 8 of the Application, pages 8-86. Concerning LG&E s Rider for Interruptible Service, provide the number of commercial and industrial customers using this rate for the calendar years 1996 through 2001 and for the 12 months ending October 31, 2002.
- 16. Refer to Volume I, Section 8 of the Application, pages 8-87. Concerning the Net Metering Service Pilot:
- a. Provide the number of customers by company that have solar powered generation.
- b. Provide the number of customers by company that have wind powered generation.

- c. Provide the number of customers by company that have hydro powered generation.
- 17. Refer to Volume I, Section 8 of the Application, pages 8-120 and 8-121. The Companies state that they used only the participant and TRC tests to screen DSM options. When reviewing the costs and benefits of DSM programs, the Commission generally considers the results of the Participant Test, the Utility Cost Test, the Ratepayer Impact Measure, and the Total Resource Cost Test. For each program screened, provide the results of each of these four cost/benefit tests. Also explain in detail why only two of the traditional DSM tests were utilized for the screening process.
- 18. Refer to Volume I, Section 9 of the Application. Describe all assumptions used in the calculation of the discount rate used for the Integrated Resource Plan. Also explain why it is reasonable to use a combined company discount rate.
 - 19. Refer to Volume II, Technical Appendix 1 of the Application, page 22.
- a. Explain how sensitive the demand and forecast estimates are to changes in the non-weather sensitive energy sales.
- b. In the model, these sales are assumed to continue to increase. Would this continue, or would the market for home entertainment, computers, etc. that were referred to in the model become saturated?
 - c. How large a component of electricity demand are these sales?
 - d. How would this change the overall demand for electricity?
- 20. Refer to Volume II, Technical Appendices 1 and 2 of the Application. Provide the following information for both forecasts:

- a. How sensitive are the models to the choice of time frame chosen for weather modeling?
- b. Does changing the time frame for weather patterns (the model assumes a 20 year moving average) change the demand forecasts and therefore the load forecasts?
 - 21. Refer to Volume II, Technical Appendices 1 and 2 of the Application.
- a. Explain the degree of sensitivity of the models to changes in the retail price of electricity.
- b. To what extent would the MISO cost adders, (Schedules 10, 16 and 17, as filed at FERC) affect the retail price of electricity and how would that affect demand and load forecasts for both companies?
- 22. Refer to Volume II, Technical Appendix 4 of the Application. The University of Kentucky (UK) study and the University of Louisville (U of L) study were performed in early 2002.
- a. Would their analysis, which is an important component of the demand and load forecast, change with regard to employment and population growth, given the continued downturn in the economy?
- b. How would this affect the demand for electricity by all classes of customer, since these are important components?
 - c. How would this change the outcome?
 - 23. Refer to Volume III, Section VII of the Application, page 10.
 - a. Explain why the RNC program was discontinued in April 2002.

- b. Provide the following historical information for this program from its inception through April 2002:
 - (1) The number of participants per year.
- (2) The peak savings calculated from this program by year and for the total program period.
- (3) The methodology used to determine the peak savings calculations.
- c. On page 10 is the statement, KU discontinued this program in April 2002 with the intent to review the program as a DSM program for both KU and LG&E customers. Explain why this program was not put into operation in LG&E's service territory.
- 24. Refer to Volume III, Section VII of the Application, Exhibit DSM-14 Residential New Construction Program.
- a. Provide the detail and assumptions used to develop the 2004 through 2008 Annual Budget for each line item on Exhibit DSM-14.
- b. Explain why the number of participants resulting from dividing the budgeted expense by the assumed \$590 per participant cost does not agree with the number of participants shown at the bottom of Exhibit DSM-14.
- 25. Refer to Volume III, Section VI, page 10 of the companies 2002 Reserve Margin Analysis. Provide copies of the EPRI report titled Cost Benefit Analysis of Power System Reliability Determination of Interruption Costs.
- 26. Refer to Volume III, Section VI, pages 18-20 of the companies 2002 Reserve Margin Analysis. Explain the purpose of modeling appropriate reserve margin

levels with No market purchase alternative and With market purchase alternative and combining the overall results to determine an optimum reserve margin. Include an explanation of whether this approach is used because a potential market purchase is uncertain at present.

- 27. Refer to Volume III, Section VI of the Application. The FERC has set a deadline for the PJM-MISO Joint and Common Market for October 2004. Would this change the expected price of purchased power analyzed in the Joint IRP and how would this change outcomes?
- 28. Refer to Volume III, Section VII, page 10, of the Application. The Smart Thermostat DSM resource passed the qualitative screening process, but failed to be passed on to the integrated analysis because it would cannibalize the existing load management program, Demand Conservation.
- a. Explain how the Smart Thermostat program would cannibalize the Demand Conservation load management program.
- b. Explain any consideration given to whether the Smart Thermostat program would not be preferable to the Demand Conservation program.
- 29. Refer to Volume III of the Application, page 11 of the companies 2002 DSM analysis. The two load management programs that passed the DSM screening were not incorporated in the integrated analysis because they would compete against the existing load management program, Demand Conservation, which just completed its first year. Provide a brief narrative status report of the Demand Conservation program through its first year of operation.

- 30. Refer to Volume III of the Application, the Reserve Margin Analysis, the Supply-Side Analysis, the NOx Compliance Analysis, and the SO₂ Compliance Analysis. The first two analyses reflect the use of a discount rate of 9.69 percent, while the NOx analysis uses 9.11 percent and the SO₂ analysis uses 8.74 percent. Explain why the four analyses use three different discount rates.
- 31. Refer to Volume III of the Application, Appendix H to the NOx Compliance Analysis. The last three cases, all of which include six SCRs, have very similar Present Value Revenue Requirements. Provide a narrative description of the robustness, or flexibility, of the recommended plan to be changed to one of the other two plans at some point in the future.
- 32. Refer to Volume III of the IRP, pages 13-14 and Appendices F and G of the SO₂ Analysis. The plans that include the addition of a scrubber at Ghent 2 are not the preferred plan, based on the Present Value Revenue Requirement analysis. However, it recommended that the installation of such a scrubber should continue to be pursued. If a decision is made to install a scrubber at Ghent 2, describe the planning process that the companies would undertake after the decision was made, including the length of time expected from the time of decision to the in-service date of the scrubber.
- 33. Explain whether any of the transmission projects listed in Volume III, Section XI, pages 1-8 are expected to alleviate MISO concerns of constraints within the

KU/LG&E system. If applicable, identify the specific projects that address MISO concerns.

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DATED: December 13, 2002

cc: All Parties