

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

JOINT APPLICATION OF LOUISVILLE GAS )  
AND ELECTRIC COMPANY AND )  
KENTUCKY UTILITIES COMPANY FOR A )  
CERTIFICATE OF PUBLIC ) CASE NO. 2005-00142  
CONVENIENCE AND NECESSITY FOR )  
THE CONSTRUCTION OF TRANSMISSION )  
FACILITIES IN JEFFERSON, BULLITT, )  
MEADE, AND HARDIN COUNTIES, KENTUCKY )

APPLICATION OF KENTUCKY UTILITIES )  
COMPANY FOR A CERTIFICATE OF PUBLIC )  
CONVENIENCE AND NECESSITY FOR THE ) CASE NO. 2005-00154  
CONSTRUCTION OF TRANSMISSION )  
FACILITIES IN FRANKLIN, WOODFORD AND )  
ANDERSON COUNTIES, KENTUCKY )

APPLICATION OF LOUISVILLE GAS AND )  
ELECTRIC COMPANY FOR A CERTIFICATE OF )  
PUBLIC CONVENIENCE AND NECESSITY FOR ) CASE NO. 2005-00155  
THE CONSTRUCTION OF TRANSMISSION )  
FACILITIES IN TRIMBLE COUNTY, KENTUCKY )

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

Pursuant to 807 KAR 5:001, Commission Staff requests that Louisville Gas and Electric Company ("LG&E") and Kentucky Utilities Company ("KU") file the original and 10 copies of the following information with the Commission, with a copy to all parties of record. The information requested herein should be filed no later than July 7, 2005, and should bear the numbers of the three cases captioned above. Each copy of the information 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 ensure its legibility. When the requested information has been previously provided in this proceeding in the requested format, reference may be made to the specific location of that information in responding to this request.

1. Supply the long-range system real and reactive load forecasts (loads by year only) used by transmission planners in the years 2000 through 2005.

2. Supply the most recent long-range load forecast in total.

3. For the load forecasts supplied, provide a short narrative of any changes that have been made in forecasting methods, models, or major assumptions. Include in the narrative any changes to the probability of occurrence or weather normalization.

4. Describe the relay systems and relay types to be installed to integrate the new facilities into the transmission system. Include in your description primary, secondary, and back-up protection systems.

5. Were alternatives considered and studied for each project? If yes, describe the alternatives and state the reasons for selecting the proposed project over the alternatives.

6. Provide the executive summaries of LG&E/KU, Midwest Independent System Operator, Inc. ("MISO"), or North American Electric Reliability Council ("NERC") transient stability, long-term dynamics, power flow, short circuit, switching surge, lightning protection, and step/touch potential studies done in connection with the

projects or alternatives. (Note: Full copies of the studies and model assumptions should be available for discussion when interviews take place.)

7. Provide diagrams for the three projects that show the physical layout of the project additions at existing substations (e.g., breaker layouts).

8. Provide a short description of each project, including the various components required, major component cost (e.g., line, substation at each end, and major river crossings), and length.

9. Explain in detail the routing each line will follow and include the name of the owner of the utility and the physical placement of the line in the corridor.

10. State the justification for each project. Include any reliability criteria that are violated under current conditions, and that would be resolved through construction of each project.

11. Supply all economic evaluations conducted in connection with the three projects including assumptions. Also provide a description of any support payments that are expected to be received from others.

12. Document how the short- and long-term thermal ratings of all electrical equipment (e.g., breakers, combustion turbines, conductor, wave traps, disconnect switches, relays, bushings, transformers, and other equipment) are calculated. Include secondary ratings, ratings within a ring bus, and the ambient and operating temperatures used.

13. Explain or graphically depict on a system map regional considerations such as transfer limits, loop flows, voltage limits, and generation clusters.

14. Provide a detailed map that shows the geographical placement and identification of transmission electrical facilities in Kentucky.

15. Provide a map that geographically shows the placement and identification of transmission electrical facilities of the NERC reliability region.

16. Provide all LG&E/KU, MISO, and NERC reliability, operating, or voltage criteria used by LG&E/KU to ensure the adequacy of its system. If certain criteria apply only to certain components or areas of the system, describe the criteria that are applicable to those areas or components.

17. Describe the contractual requirements to provide power or service to utilities in Indiana and Kentucky.

18. Explain how the MISO loadflow and stability studies ensure compliance with ECAR and LG&E/KU reliability criteria.

19. Provide support for the assertion that the same facilities required for 100 percent delivery of the Trimble #2 generating plant to LG&E/KU are required for 75 percent delivery of the Trimble #2 generating plant to LG&E/KU, including the critical contingencies that each project addresses.

20. Provide load flow plots for the base case and for each of the four options evaluated.



Beth O'Donnell  
Executive Director  
Public Service Commission  
P. O. Box 615  
Frankfort, KY 40602

DATED: June 30, 2005

cc: Parties of Record

Case No. 2005-00142  
Case No. 2005-00154  
Case No. 2005-00155