

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF KENTUCKY)
POWER COMPANY FOR A)
CERTIFICATE OF PUBLIC)
CONVENIENCE AND NECESSITY) CASE NO. 2005-00101
TO CONSTRUCT A 161 KV)
TRANSMISSION LINE IN LESLIE)
COUNTY, KENTUCKY)

COMMISSION STAFF'S FIRST DATA REQUEST
TO KENTUCKY POWER COMPANY

Pursuant to 807 KAR 5:001, Commission Staff requests that Kentucky Power Company ("Kentucky Power") file the original and 5 copies of the following information with the Commission on or before August 15, 2005, with a copy to all parties of record. 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. Provide a description of the transmission planning process and reliability testing criteria utilized by Kentucky Power or American Electric Power ("AEP").

2. Provide a description of the Volt/VAR Control issues and any planned implementations of new technologies, such as FACTS technologies.
3. Provide a description of AEP's load forecasting process and a summary of the historical and forecasted system loads.
4. Provide all the Power Flow Analyses scenarios, including considerations for wheeling and loop flows, performed for the proposed transmission line.
5. Provide a description and a summary of Kentucky Power's multi-year transmission expansion plan.
6. Provide a description and a summary of AEP's implemented or planned actions for the power system stability and security considerations resulting from North American Electric Reliability Council's ("NERC") recommendations in reaction to the August 2003 event.
7. Provide the transmission planning staff's recommendations to executive management to justify funding the proposed transmission line, and include any analysis of alternatives considered.
8. Provide supporting information showing how the AEP/Louisville Gas and Electric Company interconnection (proposed Hazard line) ranked among AEP's proposed system-wide transmission system capital projects.
9. Provide backup for the alternative (Habart to Hazard) transmission project cost estimate.
10. Provide a one-line diagram for the transmission area surrounding the proposed line.
11. Provide AEP's system protection criteria and the relay settings.

12. Provide all the protection studies performed for the proposed line.
13. Provide a description of the generation dispatch scenarios for the proposed line.
14. Provide the short-circuit analysis performed for the proposed line.
15. Provide a copy of the AEP Transmission Planning Department organization chart.
16. Kentucky Power uses probabilistic techniques in its area transmission system studies to determine the need for reliability upgrades for its transmission network. Does the design phase utilize probabilistic solutions and does the result meet the industry standard N-1, N-2 criteria?
17. In its planning process, Kentucky Power utilizes a probabilistic approach to transmission planning that allows for a higher risk factor if less load is affected. Specifically, it accepts a 95 percent reliability criteria for its normal system under steady-state conditions, and, with a single contingency, the reliability criteria falls to 92 percent for 138 kV lines and lower. Kentucky Power states that these percentages are consistent with good utility practice.
 - a. Does the NERC publish planning probability risk standards for transmission lines?
 - b. Does the East Central Area Reliability Council publish planning probability risk standards for transmission lines?
 - c. Is there an industry standard?

18. Does the \$4.2 million estimated cost of the transmission line include the costs of the protection studies to be performed and any costs for solutions that may be needed in response to those studies?



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

DATED: August 5, 2005

cc: Parties of Record