

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF EAST KENTUCKY)
POWER COOPERATIVE, INC. FOR)
A CERTIFICATE OF PUBLIC) CASE NO. 2005-00089
CONVENIENCE AND NECESSITY TO)
CONSTRUCT A 138 KV TRANSMISSION LINE)
IN ROWAN COUNTY, KENTUCKY)

COMMISSION STAFF'S DATA REQUEST TO
EAST KENTUCKY POWER COOPERATIVE, INC.

Pursuant to 807 KAR 5:001, Commission Staff requests that East Kentucky Power Cooperative, Inc. ("East Kentucky") file the original and 10 copies of the following information with the Commission on or before June 24, 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 copy of the most recent East Central Area Reliability Council's ("ECAR") transmission assessment.

2. Provide a list of transmission projects East Kentucky plans over the next 10 years, including their expected in-service dates. Highlight those projects that would directly connect to the proposed line or area served by the proposed line.

3. Provide a map showing the locations of East Kentucky's generation and transmission systems as well as a map showing the details of generation and transmission systems of other utilities that are affected by or affect East Kentucky's proposed Rowan-Cranston project or alternatives to that project.

4. Provide the CD and a printed copy of Rusch Exhibit III referred to on page 6 of the testimony of Robert J. Rusch.

5. Provide a description of the effect of the proposed Cranston-Rowan transmission line on transmission system energy losses.

6. East Kentucky suggested several reasons for the proposed transmission line based on local needs, including: preventing overloads in the area; supporting customer load growth in the area; providing a second source to Cranston; and preventing low voltages in the area. East Kentucky also suggested other reasons for the proposed line based on regional needs, such as allowing full economic dispatch of generation (i.e., increasing full output at Spurlock and decreasing required output for local area support of combustion turbines at J.K. Smith) and becoming part of a planned 138 kV transmission loop in eastern Kentucky.

a. Is this an accurate characterization of East Kentucky's position? If no, provide such a characterization.

b. Describe the extent to which the local need as compared to the regional need drives the need for the proposed project.

7. Are thermal overloads and low voltages an issue only at the time of system peak?

a. Do they also occur at shoulder peak periods?

b. At what percentage of the system peak do lines overload and/or does the system experience low voltage?

8. The application and supporting documents do not contain information about the forecasts of customer load growth in the area. For each member cooperative in the area affected by the proposed project, provide:

a. Historic winter and summer peak demand levels for the last 5 years.

b. Projected winter and summer peak demand levels for the next 10 years.

c. Historic annual energy requirements for the last 5 years.

d. Projected annual energy requirements for the next 10 years.

e. Information on the mix of customers (residential, commercial, industrial) served by area member cooperatives.

9. Identify any substations in the project area at which loads are projected to grow substantially faster than the system average.

10. Provide the most recent annual load duration curves for the member cooperative in the area affected by the proposed project and the number of hours the load was at 95 percent of peak or higher, 90 percent of the peak or higher, and so on in decrements of 5 percent of peak load for the most recent year for each of the member cooperatives.

11. Describe how program-driven and naturally occurring energy efficiencies (including efficiency standards and other matters affecting energy efficiency other than the programs offered by the cooperatives) are accounted for in the forecasts. Is the effect of energy efficiencies explicitly or implicitly included in the forecast for both the naturally occurring energy efficiency and cooperative program-driven energy efficiency?

12. Describe how East Kentucky develops its load forecasts. How are member cooperative forecasts developed and incorporated into the East Kentucky system forecast?

13. Describe the circumstances under which low voltages occur.

a. Do low voltage problems occur anywhere other than along the Hilda-Elliottville 69 kV line?

b. Explain where the 89.7 percent voltage (Rusch Exhibit III, page 3) occurs and how that is “similar to previous results.”

c. Which power flow runs confirm the 89.7 percent voltage?

d. Explain where the voltages are measured and whether the power flow modeling takes into account variable capacitor additions before assessing the voltage.

14. Describe East Kentucky’s 138 kV Eastern Loop, including its purpose, location, elements completed and elements yet to be completed.

15. Refer to page 2 of Mr. Rusch’s testimony. Describe the “significant operational issues” that would be created during the outage of the KU Goddard-Rodburn line for reconductoring.

16. Did East Kentucky consider any alternatives to the proposed line involving the siting of distributed generation (including that owned by or located on customer host sites) in locations that would resolve local transmission problems? If yes, describe them and explain why they were not considered further. If no, explain in detail.

17. Did East Kentucky consider any alternatives to the proposed line involving demand-side management or load control to reduce electricity demands in locations that would resolve local transmission problems? If yes, describe them and explain why they were not considered further. If no, explain in detail.

18. Describe any other alternatives East Kentucky might have considered and explain why they were rejected.

19. East Kentucky considered but rejected reconductoring the KU Goddard-Rodham 138 kV line. Describe the age and condition of the existing line and indicate whether the line could be recondored or whether it would have to be substantially rebuilt.

20. The April 2002 Final Report projected the performance of the proposed line and alternative essentially 5 years (2005-06) and 10 years (2010-11) when the studies were begun. Do the alternatives East Kentucky studied then and found to be adequate over the 10-year planning horizon still perform adequately over the current 10-year planning horizon? Explain in detail.

21. The 2004 Operational Update was intended to reflect changes in the transmission system that occurred since preparation of the 2002 Final Report. Compare the loads used in modeling the April 2002 Report to the loads used in modeling the 2004 Operational Update.

22. Provide the generator output levels and purchase power levels for each of the dispatch cases East Kentucky analyzed.

23. It appears that power purchases from the north exacerbate the loading on the Goddard-Rodburn line, whether those purchases are by utilities for use in Kentucky or by regional entities that transport power across Kentucky. Describe how these power purchases or across-state transfers affect the transmission problems in eastern Kentucky, and discuss the amount of north-south power flow across the state, the frequency of that flow, and the implications, if any, on the Cranston-Rowan line.

24. To better understand the proposed transmission project in the context of East Kentucky's demand forecasts, supply plans, and demand-side plans, provide the relevant materials from East Kentucky's Integrated Resource Plans or current updates regarding East Kentucky's:

- a. Forecasts of peak demand and annual energy requirements.
- b. Demand-side management programs currently in place.
- c. Approach to supply planning.
- d. Current supply expansion plan.

25. Did East Kentucky consider as an alternative a modification to the Cranston Tap proposal, which continues a new 138 kV circuit from the location of the Cranston Tap to Rodburn? This alternative was identified in the consultant's report.

a. Would that alternative be effective electrically to solve the problem East Kentucky is addressing? Explain your answer.

b. How does this alternative compare with East Kentucky's proposed line from a cost standpoint? Explain your answer.

26. Did East Kentucky consider as an alternative the upgrading of the Goddard-Hilda-Rowan 69 kV line to 138 kV to provide a parallel 138 kV circuit to KU's Goddard-Rodburn line? This alternative was identified in the consultant's report.

a. Would that alternative be effective electrically to solve the problem East Kentucky is addressing? Explain your answer.

b. How does this alternative compare with East Kentucky's proposed line from a cost standpoint? Explain your answer.



Beth O'Donnell
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DATED: June 16, 2005

cc: Parties of Record