COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF KENERGY CORPORATION	)	
FOR A CERTIFICATE OF CONVENIENCE AND	)	CASE NO.
NECESSITY FOR THE 2002-2004 WORK PLAN	)	2002-00379

FIRST DATA REQUEST OF COMMISSION STAFF TO KENERGY CORPORATION

Kenergy Corporation (Kenergy) is requested, pursuant to Administrative Regulation 807 KAR 5:001, Section 9, to file with the Commission the original and 10 copies, unless specifically requested otherwise herein, of the following information, with a copy to all parties of record. The information requested herein is due no later than 21 days from the date of this request.

1. Refer to Rural Utility Service (RUS) Form 740C, Section A, Code 200b, New Tie Lines. Was a Borrower s Environmental Report (BER) prepared for each project or was Kenergy granted a categorical exclusion from the RUS BER requirement?

2. Refer to RUS Form 740C, Section A, Code 420, Install Fiber Loop.

a. Provide detailed economic, engineering, or operation cost justifications for said project.

b. Were alternatives such as radio, CATV, leased line, etc. compared?

3. Refer to RUS Form 740C, Section A, Codes 537 and 502, Replace/Relocate Transformers. Explain the difference between the project price here as compared to those of Exhibit 2-1.

4. Refer to RUS Form 740C, Section A, Code 538. Explain the difference between the transformer rating and project price here as compared to those of Exhibit 2-1.

5. Refer to RUS Form 740C, Section A, Code 602, Sets of Service Wires Replaced. Provide details as to the method and information used to arrive at the per unit cost of $1,516.

6. Refer to RUS Form 740C, Section A, Code 606, Ordinary Pole Replacements. Provide details as to the method and information used to arrive at the total cost of $2,012,195.

7. Refer to RUS Form 740C, Section A, Code 701, Security Lights. Provide details as to the method and information used to arrive at the total cost of $486,475.

8. Refer to Design Criteria No. 1 on page 1-1. Explain the economic, engineering, and operation justifications for limiting the use of two line regulators in series.

9. Refer to Design Criteria No. 2 on page 1-1.

a. Are the loading levels strictly adhered to or is each occurrence studied for a best fit economic, engineering, or operation solution?

b. Explain the reasoning behind the 20-amp limit on a 1-phase 14.4 line.

10. Refer to Design Criteria No. 3 on page 1-1 and the substation capacities listed on pages 1-11 and 1-12.

a. Provide the reasoning and documentation as to why Kenergy uses a substation calculated capacity based upon a base oil/air nameplate rating at 55° Centigrade rise instead of a base oil/air forced/air nameplate rating at 65° Centigrade rise (based on the IEEE Guide for Loading Mineral-Oil-Immersed Power Transformers Up to and Including 100 MVA with 55 or 65° Centigrade Average Winding Rise standard (C57.92.1981). Assuming these stages of cooling, OA-55C/OA-65C/OAFA-65C, your 10/12.5/14.4 MVA transformer would be good for 8.8/12.4/14.0 MVA in the summer (100° Fahrenheit) and 14.9/17.6/18.7 MVA in the winter (32° Fahrenheit).

b. Provide a table of monthly load factors for each substation based upon the most current 12-month information.

c. Are OAFA transformer ratings used by Kenergy? If not, explain why Kenergy does not use these ratings.

d. Are transformer cooling fans used by Kenergy? If not, explain why Kenergy does not use transformer cooling fans.

e. Can the reserve transformer capacity be provided/shared by more than one adjacent substation?

11. Refer to Design Criteria No. 11 on page 1-3. Provide the engineering, economic, and operation justifications for making exclusive use of underground Exit Circuits from substations.

12. Refer to Table 1-3 on page 1-6. Provide a cost breakdown for the installation of three 1,000kVA, 1 ph step transformers accurate.

13. Refer to RUS Form 300 Operation and Maintenance (O&M) Survey in Exhibit 1-2. Detail Kenergy s right-of-way clearing program and any changes that have been made due to said O&M Survey.

14. Refer to New Tie Lines Code 207 in Section 2 on page 2-5. Explain the need for more than three Exit Circuits from the East Owensboro Substation.

15. Refer to New Tie Lines Code 208 in Section 2 on page 2-6. Provide the cost justification attributable to the reliability and loading improvement for the installation of the double-circuit versus a single-circuit.

16. Refer to New Tie Lines Code 216 in Section 2 on page 2-6. Check the correctness of the 2.3 miles shown. Provide the cost justification attributable to the reliability improvement for the installation of this and Code 317, page 2-17, $297,000 upgrade.

17. Refer to New Tie Lines Code 203 in Section 2 on page 2-7. Explain the need for more than three Exit Circuits from the Providence Substation.

18. Refer to Conversion and Line Changes Code 308 in Section 2 on page 2-8. Explain the need for reconductoring the double circuit, Feeders 2 and 4. Feeder No. 2 is loaded at 2004 peak to 14 percent and feeder No. 4 is loaded at 2004 peak to 45 percent based upon the information provided by Table 1-9 on page 1-17. Circuit No. 2 is not restrained by voltage drop, and Circuit No. 4 will only be improved by two-tenths volts per information provided. Was the alternative of relocating the regulator bank from Section 956 to Section 412 or additional capacitors considered?

19. Refer to Conversion and Line Changes Code 309 in Section 2 on page 2-9. Explain why 2-phase would not be appropriate due to the limited ability to balance the proposed 3-phase line.

20. Refer to Conversion and Line Changes Code 304 in Section 2 on page 2-9 and with the possible reconsideration of Design Criteria No. 2 on page 1-1. Would it be possible to defer this project to some future date?

21. Refer to Conversion and Line Changes Code 316 in Section 2 on page 2-10. Provide the cost justification attributable to the reliability and loading improvement for the installation of the double-circuit versus a single-circuit.

22. Refer to Conversion and Line Changes Code 385 in Section 2 on page 2-10. Explain the justification for this project.

23. Refer to Conversion and Line Changes Code 319 in Section 2 on page 2-11. Explain the justification for this project. The total load of this substation from Table 1-8 on page 1-15 is 570 kW.

24. Refer to Conversion and Line Changes Code 386 in Section 2 on page 2-12. Explain the economic and reliability justifications for the need of a backfeed with the existing limited backfeed already in place.

25. Refer to Conversion and Line Changes Code 322 in Section 2 on page 2-12. Explain why the use of two series regulator banks would be objectionable. Provide the voltage drop results with only the phase balancing conducted.

26. Refer to Conversion and Line Changes Code 325 in Section 2 on page 2-13. Provide a larger scale representation of the circuit and work requested.

27. Refer to Conversion and Line Changes Code 303 in Section 2 on page 2-13. Explain why the addition of two phases of 2 ACSR would not be an appropriate solution.

28. Refer to Conversion and Line Changes Code 329 in Section 2 on page 2-14. Explain the additional benefit gained from this tie to Beda Substation than provided by the existing ties, especially via section 413 and 417. This would allow 1/0 ACSR 3-phase to be built in Section 407.

29. Refer to Conversion and Line Changes Code 327 in Section 2 on page 2-14. Provide engineering, reliability, and operation justifications as to the reasoning why this line could not remain 1-phase. Provide economics of having a small section of 336 ACSR in the middle of a smaller conductor tie and with additional existing tie capabilities from other circuits.

30. Refer to Conversion and Line Changes Code 306 in Section 2 on page 2-15. Explain the engineering and economic justifications behind reconductoring to 336 ACSR instead of adding two additional phases of 1/0 ACSR.

31. Refer to Conversion and Line Changes Code 330 in Section 2 on page 2-15. Provide evidence that the conversion to three phase will allow the needed load balancing.

32. Refer to Conversion and Line Changes Code 320 in Section 2 on page 2-16. Explain the justification for reconductoring to 3-phase 1/0 ACSR instead of adding two additional phases of 2 ACSR.

33. Refer to Conversion and Line Changes Code 317 in Section 2 on page 2-17. Provide information as to the scope of this project. Wording indicates this is a new line whereas the circuit diagram indicates it to be a conversion of an existing line.

34. Refer to Conversion and Line Changes Code 337 in Section 2 on page 2-18. Provide alternate analysis of converting section 152 to 3-phase 1/0 ACSR in lieu of requested work. Provide justification as to the need of an additional feeder from this substation.

35. Refer to Conversion and Line Changes Code 310 in Section 2 on page 2-19. Explain the justification for the use of 336 ACSR instead of 1/0 ACSR. Expound on the possibility of installing a tie between Section 137/206 and transferring load.

36. Refer to Conversion and Line Changes Code 311 in Section 2 on page 2-20. Explain the anticipated problem(s) with 38 amps on this tap; coordination appears possible at this location.

37. Refer to Conversion and Line Changes Code 389 in Section 2 on page 2-21. Provide the alternate analysis of the following scope of work:

a. Use Code 221 on page 2-7 to feed Circuit 4 thus transferring load from South Hanson 1 to South Hanson 2.

b. Install downline three-phase recloser at Section 907 (and even section 1081) to increase reliability of Circuit 1.

38. Refer to Conversion and Line Changes Code 344 in Section 2 on page 2-21. This project appears to be from the Dixon Substation instead of the noted Sullivan Substation. Provide a detailed circuit diagram. The project appears to be unattached to any multiple phase line section.

39. Refer to Conversion and Line Changes Code 349 in Section 2 on page 2-25. Was the possibility of a new tie line to the load end of Section 62 investigated as a means to divide the load?

40. Refer to Conversion and Line Changes Code 375 in Section 2 on page 2-26. With the completion of Code 350 and load transfer from Section 924 to 925, would this project still be required?

41. Refer to Conversion and Line Changes Code 372 in Section 2 on page 2-27. Provide details as to the method used to determine which of the 4 ACSR plant is to be reconductored.

42. Refer to Alternative A No Adams Lane Substation in Exhibit B, Table B-1 on page B-2. Provide the following information:

a. Was credit allowed for the 10/12.5/14.4 MVA transformer removed?

b. Was a Weaverton Substation solution considered? Much less distribution work appears to be required if load is supplied from an increased MVA Weaverton Substation.

43. Refer to the new Adams Lane Substation price breakout in Exhibit 2-1.

a. Provide an explanation of the price for the land purchase.

b. Provide an explanation of the cost of the communication link and building.

c. Was an economic analysis conducted to determine the best means of communication (i.e., radio, microwave, telephone, CATV, etc.)?

d. Have the cost of these substations been compared to other substations built around the state at lower costs?

44. Refer to the Morganfield Substation upgrade price breakout in Exhibit 2-1. Provide the reason for the unique transformer rating and the associated increase in purchase cost.

45. Refer to the New Providence Substation price breakout in Exhibit 2-1.

a. Provide an explanation of the cost of the communication link and building.

b. Was an economic analysis conducted to determine the best means of communication (i.e., radio, microwave, telephone, CATV, etc.)?

c. Has the cost of this substation been compared to other substations built around the state at lower costs?

46. Refer to the Economic Conductor Selection information on page A-3 of Appendix A. Review the bullet information as compared to the graphs of Figures A-2 and A-4. Is this information correct?

47. Refer to the Economic Conductor Selection information on page A-6 of Appendix A. Review the voltage shown in the New three-phase wording. Is this information correct?

48. Provide two copies of the voltage drop studies based on the present system at historical peak.

49. Provide two copies of the voltage drop studies based on the present system at the proposed CWP peak.

50. Provide two copies of the voltage drop studies based on the proposed system at the proposed CWP peak.

51. Has Kenergy compared actual measured voltage and the calculated voltage to determine the accuracy of the voltage drop studies?

a. If yes, provide the voltage reading and indicate the substation, line section, and date on which each reading was taken. If the actual reading differs from the calculated voltage by more than two volts, explain the reason for the difference.

b. If no, explain why a comparison is not necessary.

Thomas M. Dorman
Executive Director
Public Service Commission
Post Office Box 615
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DATED __January 27, 2003__

cc: All Parties