

Goss & Samford PLLC



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May 1, 2014

Via Hand-Delivery

Mr. Jeffrey Derouen
Executive Director
Kentucky Public Service Commission
P.O. Box 615
211 Sower Boulevard
Frankfort, KY 40602

RECEIVED
MAY 1 - 2014
PUBLIC SERVICE
COMMISSION

Re: In the Matter of: Harold Barker; Ann Barker and
Brooks Barker v. East Kentucky Power Cooperative, Inc.
PSC Case No. 2013-00291

Dear Mr. Derouen:

Enclosed please find for filing with the Commission in the above-referenced case an original and ten (10) copies of East Kentucky Power Cooperative, Inc.'s Data Requests to Complainants. Please return a file-stamped copy to me.

Do not hesitate to contact me if you have any questions.

Very truly yours,

David S. Samford

Enclosures

M:\Clients\4000 - East Kentucky Power\1350 - Harold Barker Complaint -
PSC Case No. 2013-00291\Correspondence\Ltr. to Jeff Derouen - 140501

5. To the extent that the specific document, workpaper or information does not exist as requested, but a similar document, workpaper or information does exist, provide the similar document, workpaper, or information.

6. To the extent that any request may be answered by way of a computer printout, please identify each variable contained in the printout which would not be self-evident to a person not familiar with the printout.

7. If you object to any request on the grounds that the requested information is proprietary in nature, or for any other reason, please notify EKPC as soon as possible.

8. For any document withheld on the basis of privilege, state the following: date; author; addressee; indicted or blind copies; all persons to whom distributed, shown, or explained; and, the nature and legal basis for the privilege asserted.

9. "Document" means the original and all copies (regardless of origin and whether or not including additional writing thereon or attached thereto) of memoranda, reports, books, manuals, instructions, directives, records, forms, notes, letters, notices, confirmations, telegrams, pamphlets, recordings, notations of any sort concerning conversations, telephone calls, meetings or other communications, bulletins, transcripts, diaries, analyses, summaries, correspondence investigations, questionnaires, surveys, worksheets, and all drafts, preliminary versions, alterations, modifications, revisions, changes, amendments and written comments concerning the foregoing, in whatever form, stored or contained in or on whatever medium, including computerized memory or magnetic media. A request to identify a document means to state the date or dates, author or originator, subject matter, all addressees and recipients, type of document (e.g., letter, memorandum, telegram, chart, etc.), code number thereof, or other means of identifying it and its present location and custodian. If any such document was, but is no longer in your possession or subject to your, state what disposition was made of it, including the date of such disposition.

10. "Study" means any written, recorded, transcribed, taped, filmed, or graphic matter, however produced or reproduced, either formally or informally, considering or evaluating a particular issue or situation, in whatever detail, whether or not the study of the issue or situation is in a preliminary stage, and whether or not the study discontinued prior to completion.

11. "Person" means any natural person, corporation, professional corporation, partnership, association, joint venture, proprietorship, firm, or the other business enterprise or

legal entity. A request to identify a natural person means to state his or her full name and residence address, his or her present last known position and business affiliation at the time in question. A request to identify a person other than a natural person means to state its full name, the address of its principal office, and the type of entity.

12. “And” and “or” should be considered to be both conjunctive and disjunctive, unless specifically stated otherwise. “Each” and “any” should be considered to be both singular and plural, unless specifically stated otherwise. Words in the past tense should be considered to include the present, and words in the present tense include the past, unless specifically stated otherwise. “You” or “your” means the person whose filed testimony is the subject of these interrogatories and, to the extent relevant and necessary to provide full and complete answers to any request, “you” or “your” may be deemed to include any person with information relevant to any information request who is or was employed by or otherwise associated with the witness or who assisted, in any way, in the preparation of the witness’ testimony.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'D. Samford', written over a horizontal line.

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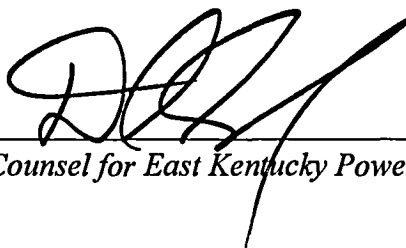
Counsel for East Kentucky Power Cooperative, Inc.

CERTIFICATE OF SERVICE

This is to certify that the attached Information Requests were served by depositing same in the custody and care of the U.S. Mails, postage-prepaid, this 1st day of May, 2014, addressed to the following:

Harold, Ann & Brooks Barker
5450 Mt. Sterling Road
Winchester, KY 40391

Alex Rowady
212 South Maple Street
Winchester, KY 40391

A handwritten signature in black ink, appearing to be 'AR', written over a horizontal line.

Counsel for East Kentucky Power Cooperative, Inc.

1. Refer to page 2 of the Barkers' testimony. Please produce any and all documentation confirming the assertion that EKPC approved the location of the Barkers' residence or detached garage.

2. Refer to page 7 of the Barkers' testimony. Please describe the procedure by which you obtained the measurements of the level of magnetic or electric fields. At a minimum, this should include:
 - a. An identification of the type of equipment used, including the brand name, manufacturer and serial number.
 - b. The date you acquired each and every piece of equipment identified in response to (a) above and the person(s) from whom you acquired each and every piece of said equipment.
 - c. The date(s) upon which you have each and every piece of equipment identified in (a) above calibrated, the method of calibration, the standard used for each calibration and person(s) performing the calibration.
 - d. The training you received to operate said equipment.
 - e. A step-by-step description of the process by which you obtained each measurement.

3. Refer to page 7 of the Barkers' testimony, where it is stated that Dr. Carpenter testified in February 2010 before the Minnesota State Legislature. Please provide the outcome of that proceeding, including copies of any published reports and studies.

4. Refer to page 9 of the Barkers' testimony. Please provide a detailed description of the underlying facts and reasoning supporting the conclusion that the 138kV circuit is unnecessary since it has been operated at 69 kV.

5. Refer to the Barker Testimony, page 9. Please explain in detail how the Barkers concluded that the upgrade of the existing transmission line was connected with the possible addition of Warren Rural Electric Cooperative Corporation as a member of EKPC.

6. Refer to Response 5, page 12 of the Barkers' testimony. Please provide a copy of all surveys of the Barker Property undertaken for the purpose of ascertaining the precise area of the additional right of way easement.
7. Refer to Response 6b, page 12 of the Barkers' testimony. Please provide any and all facts supporting your statement that UT78 is 130 feet tall and not 140 feet tall.
8. Please produce a copy of all recordings in the Barker's custody or control of any employees, representatives or agents of EKPC (whether audio or video) and a copy of any transcript of each such recording. For each such recording, please state:
 - a. The date of the recording.
 - b. The identity of the person making the recording.
 - c. The identities of each person recorded.
 - d. Whether each person recorded gave prior consent to the recording.
9. Please provide a copy of all proposals, suggestions or offers made by the Barkers, directly or indirectly through counsel or other agents or representatives, to EKPC regarding the location of the transmission line on their property. If written copies of any such proposal, suggestion or offer do not exist, please provide a detailed description of the substance of each such proposal, suggestion or offer.
10. Please provide a copy of all proposals, suggestions or offers made by EKPC, directly to the Barkers or indirectly to their counsel, regarding the location of the transmission line on their property (including, but not limited to all alternative placement locations, variations in transmission line characteristics, offers to purchase right-of-way, offers to relocate the structures on the premises, etc.) that were rejected by the Barkers. If written copies of any such proposal, suggestion or offer do not exist, please provide a detailed description of the substance of each such rejected proposal, suggestion or offer.
11. Please admit that the Barkers were offered a copy of the Department of Energy's RAPID brochure at the November 2005 open house.

12. Please provide a detailed description of any and all items in the Barkers' home, detached garage or elsewhere on their property that may create an electric or magnetic field.
13. If it is the Barkers' contention that they have been injured by the proximity of the transmission line to their residence or detached garage, please provide a detailed description of each such injury, including the date of injury or diagnosis and the facts supporting the contention that said injury has been caused by the proximity of the transmission line.
14. Please provide a detailed explanation as to why the Barkers did not contact the Kentucky Public Service Commission ("Commission") subsequent to the November 2005 Open House and prior to the commencement of the replacement and upgrade project.
15. Please provide a copy of any and all reports, correspondence or other documents or recordings provided to the PSC by the Barkers or received by the Barkers from the Commission.
16. Concerning transmission lines,
 - a. Please identify how many miles of transmission line Mr. Pfeiffer has personally routed, designed or built, including the voltage of such lines, where they were located and who owned them.
 - b. Has Mr. Pfeiffer ever been personally involved in the budgeting/estimating of a transmission line project? If yes, please identify the location, length, voltage, and owner of each project.
17. Please indicate how many electric and magnetic fields evaluation reports Mr. Pfeiffer has prepared during the past 10 years. Please explain why each report was prepared and please provide a copy of each such report.
18. Please provide the source(s) for all electric and magnetic field documentation utilized in the Pfeiffer report. In addition, please provide a detailed explanation of how information based on 50Hz power systems is applicable to 60Hz power systems.

19. Please refer to page 6 of Mr. Pfeiffer's report, Section V, part A. Mr. Pfeiffer states, "EKPC misrepresented critical distances where new right-of-way for the transmission line is required in addition to the existing right-of-way being used for the majority of the project." On page 37 of Mr. Pfeiffer's report he provides a summary of the line deviation segments; however he does not explain how the deviations were determined. Please provide a detailed explanation of the method used by Mr. Pfeiffer to determine these deviations. Include all supporting workpapers, analyses, and other documentation used to make the determinations.

20. Please refer to page 8 of Mr. Pfeiffer's report, Section V, part H. Mr. Pfeiffer states, "These perceived health risk are also affecting the candy business that Mrs. Ann Barker runs out of her garage, as people are afraid to come to her business because of the close proximity to these lines." Please provide documentation covering the past 15 years to support this claim, such as business receipts records and income tax records for the candy business.

21. Please refer to pages 12 and 13 of Mr. Pfeiffer's report which lists states in which there are limits for magnetic and electric fields. For each state identified, please provide:

- a. The field strength(s) for both magnetic and electric field limits.
- b. The date that each limit was adopted by the state.
- c. The agency responsible for adopting each limit.
- d. The source(s) relied upon by Mr. Pfeiffer to make the claim about each state identified herein.

22. Please refer to page 13 of Mr. Pfeiffer's report, Item F. Mr. Pfeiffer states, "The power lines are being operated at far less than full capacity today." Please provide documentation supporting this statement.

23. Please refer to pages 13 and 14, Item F of Mr. Pfeiffer's report. Please provide the basis and calculations for his estimate of magnetic field and electric field values.

24. Please refer to page 14, Figure 3 included in Mr. Pfeiffer's report. Please identify the person(s) who performed the measurements for this chart?

25. Refer to page 14 of Mr. Pfeiffer's report, Section G. Please provide all documentation Mr. Pfeiffer is aware of describing what other regulated utilities in Kentucky are doing with respect to electric and magnetic fields.
26. Please refer to the models used by Mr. Pfeiffer to calculate magnetic fields and electric fields on the Barkers' premises. Please indicate:
- a. What software was used to perform the modeling.
 - b. The basis for the dimensioning of the structure and phase locations used in the model.
 - c. The phase rotation assumptions used in the model.
 - d. The basis for loading (current, voltage) assumptions used in his model.
 - e. The basis for his conclusion that actual measurements are not valid given that the ground slopes downhill from the Barkers' residence toward the transmission line.
27. Please identify all measurements of magnetic fields or electric fields personally taken by Mr. Pfeiffer. For each such measurement, please provide:
- a. An identification of the type of equipment used, including the brand name, manufacturer and serial number.
 - b. The date he acquired each and every piece of equipment identified in response to (a) above and the person(s) from whom he acquired each every piece of said equipment.
 - c. The date(s) upon which he had each and every piece of equipment identified in (a) above calibrated, the method of calibration, the standard used for each calibration and person(s) performing the calibration.
 - d. The training he received to operate said equipment.
 - e. A step-by-step description of the process by which he obtained each measurement.
28. Please refer to page 20 of Mr. Pfeiffer's report, paragraph IX. Mr. Pfeiffer states, "Standards such as the National Electrical Code – NFPA 70 are adopted by the State Legislature every three years in order to make these standards a requirement." Please provide specific documentation as to the National Electrical Code's application to electric utilities.

29. Please refer to page 49 of Mr. Pfeiffer's report, Figure 12. Please explain in detail how Mr. Pfeiffer calculated the dimensions shown on Figure 12.
30. Please refer to page 50 of Mr. Pfeiffer's report. Please provide specific citations to the RUS standards Mr. Pfeiffer is referencing in his statement concerning a violation of "the intent of the RUS standards."
31. Please refer to page 68 of Mr. Pfeiffer's report, where it states, "two cables being considered are separated by 1070 feet..." Please identify what cables are separated by 1070 feet and whether this is a conceptual assertion or an assertion based upon actual conditions.
32. Please refer to pages 70 and 71 of Mr. Pfeiffer's report. Please provide a detailed description of why Mr. Pfeiffer chose to use EKPC's measurements for the electric field, but then used his own measurements (taken at a different date and time) for the magnetic field?
33. Please refer to page 77 of Mr. Pfeiffer's report, paragraph F. Mr. Pfeiffer states, "This line, at the time of the measurements, was operated at 69 kV. Thus, the resultant EMF is lower than what can be expected in the future." Please provide all documentation and/or calculations that support this statement.
34. Please refer to page 78 of Mr. Pfeiffer's report.
- a. Please provide a detailed description of how all equipment comprising the transmission system was considered in determining these capacities? In particular, how were the thermal ratings of equipment such as line switches and circuit breakers incorporated into the calculation of potential thermal loading capability?
 - b. Please provide a detailed description of whether the operating voltage of the line was considered in determining the capacities?
35. Please refer to page 72 of Mr. Pfeiffer's report. Mr. Pfeiffer states, "Also as we go past the first cable of the transmission line the measurements are distorted by the fields from all the cables interacting. Thus, the data becomes complex and some of it has to be discarded."

- a. Please describe in detail how Mr. Pfeiffer determined what data should be retained and what data should be discarded.
 - b. Please provide all data discarded by Mr. Pfeiffer for his analysis.
36. Please refer to page 78 of Mr. Pfeiffer's report. Mr. Pfeiffer states the actual operating conditions of the line during his measurements. Please provide the source of the actual operating conditions noted when Pfeiffer Engineering took its magnetic field measurements.
37. Please refer to page 79 of Mr. Pfeiffer's report. Please provide a detailed description of the basis for your opinion that all lines will approach design capacity sometime in the future?
38. Please refer to page 79 of Mr. Pfeiffer's report regarding transmission line operating temperatures. Please describe your understanding of next-contingency operating requirements and whether you believe your report is consistent with these requirements.
39. Please refer to page 96 of Mr. Pfeiffer's report. Mr. Pfeiffer notes one option of reducing the effects of electric and magnetic fields is to increase the height of the poles.
 - a. Has Mr. Pfeiffer performed an analysis to determine if this option is a feasible solution to resolve the Barker's concerns? If yes, provide the results of that analysis.
 - b. Has Mr. Pfeiffer discussed this alternative with the Barkers? If yes, please provide the results of that discussion. If no, please explain why that option has not been presented to the Barkers.
40. Please refer to page 102 of Mr. Pfeiffer's report. Please explain in detail why Mr. Pfeiffer believes the only cost to relocate the power line would be the cost of additional wire.
41. Concerning measurements of distance using Google Earth,
 - a. Would Mr. Pfeiffer admit that a ground survey will produce a more accurate measurement of distance than the use of Google Earth?

b. Has Mr. Pfeiffer actually measured the distances between the installed lines and the Barker house? If yes, please provide the results of his measurements. If no, please explain in detail why Mr. Pfeiffer has not taken the actual measurements.

42. Please provide a list of all proceedings in which Dr. Carpenter has been permitted to offer his expert opinion and/or testimony and all proceedings in which Dr. Carpenter's proffered his expert opinion and/or testimony has not been permitted to be offered or has been excluded.

43. Please refer to Dr. Carpenter's testimony. Please identify all applicable federal, state or local standards that have been enacted with regard to magnetic fields or electric fields. For each such standard, please identify:

- a. The nature and characteristics of the standard.
- b. The date that standard was adopted by the applicable state.
- c. The agency responsible for adopting each limit.
- d. The source(s) relied upon by Dr. Carpenter to demonstrate the adoption of such standard(s).

44. Please provide quantitative data showing that EKPC has violated any electric field exposure limit to which utilities serving in the Commonwealth of Kentucky must adhere as approved and mandated by Kentucky law.

45. Please provide quantitative data showing that EKPC has violated any magnetic field exposure limit to which utilities serving in the Commonwealth of Kentucky must adhere as approved and mandated by Kentucky law.

46. Please provide quantitative data showing that EKPC has violated any federal electric field exposure limit to which utilities serving in the Commonwealth of Kentucky must adhere.

47. Please provide quantitative data showing that EKPC has violated any federal magnetic field exposure limit to which utilities serving in the Commonwealth of Kentucky must adhere.

48. Please provide quantitative data showing that EKPC has violated any Rural Utilities Service (“RUS”) electric field exposure limit to which utilities serving in the Commonwealth of Kentucky must adhere.
49. Please provide quantitative data showing that EKPC has violated any RUS magnetic field exposure limit to which utilities serving in the Commonwealth of Kentucky must adhere.
50. If you provide any quantitative data in response to information requests 4 and 5 above, please provide a copy of the federal, state, or RUS standard(s) which support your response.
51. Please state whether Dr. Carpenter disagrees with the information contained in the Department of Energy’s RAPID brochure? If the answer is “yes,” please identify each such disagreement and provide a detailed description of the nature of, reason for and facts supporting the disagreement.
52. At the end of the next to last paragraph of his testimony, Dr. Carpenter states, “It is particularly onerous in that the utility did not have to run the line so close to their house, since there are open fields both to the east and the west.” Please describe the analysis performed by Dr. Carpenter that established that the “open fields both to the east and the west” were viable and available alternative routes for the transmission line.
53. In the last paragraph of his testimony, Dr. Carpenter states, “This must be a critical consideration when routes for a new high voltage powerlines are being considered, and this clearly did not occur when the present line was built.” Please provide the analyses, studies, and documentation Dr. Carpenter relied upon to reach this conclusion.
54. Please provide the name, title, address and phone number of all experts with whom the Barkers have consulted regarding the effect of magnetic fields or electric fields. For each such expert identified, please provide copies of any reports, correspondence or other documents received.

55. If it is your contention that the transmission line project was not a replacement or upgrade of an existing transmission line, please provide a detailed description of the facts upon which such contention is based.