

STATE OF NEW JERSEY  
BOARD OF PUBLIC UTILITIES

IN THE MATTER OF THE PETITION OF  
PUBLIC SERVICE ELECTRIC AND GAS  
COMPANY FOR A DETERMINATION  
PURSUANT TO THE PROVISIONS  
OF N.J.S.A. 40:550-19  
(SUSQUEHANNA –ROSELAND  
TRANSMISSION LINE)

BPU Docket No. EMO9010035

**STOP THE LINES  
FIRST REQUEST FOR THE  
PRODUCTION OF DOCUMENTS AND  
INTERROGATORIES RE: TESTIMONY  
OF KYLE G. KING**

Stop the Lines hereby makes the following Interrogatories and Requests for the Production of Documents of Kyle G. King, witness for Public Service Electric and Gas Company, pursuant to N.J.A.C. § 1:10-1 et seq.

**INSTRUCTIONS**

Stop the Lines requests that answers to these Interrogatories and Requests for Production of Documents be provided to Carol A. Overland and David Slaperud, Stop the Lines, at the address below. Stop the Lines requests that responses also be provided electronically to [overland@legalectric.org](mailto:overland@legalectric.org) and [info@stopthelines.com](mailto:info@stopthelines.com).

For each response, identify the party answering and the Interrogatory to which it is responsive.

When the following terms or names are used, the undersigned intends the meanings hereinafter described to be associated with such terms and names.

These Interrogatories and Request for Production of Documents are ongoing. If your answers should change, or if new information becomes available, please update these responses as soon as possible.

## DEFINITIONS

Stop the Lines adopts the following Definitions for the purposes of this Discovery:

1. The singular includes the plural and the plural includes the singular where appropriate to the sense of the Demand for Production.
2. "Identify" or "identity" when used in reference to:
  - A. an individual, shall mean to state his full name, present or last known residential address, and present or last known employment position or business affiliation, indicating name of company, job title, employment address, and telephone numbers;
  - B. a firm, partnership, corporation, proprietorship, association or other organization or entity shall mean to state its full name, present or last known address and telephone number (designating which, the legal form of such entity or organization, and the identity of its chief executive officer);
  - C. a "document" shall mean to state, if applicable, the date of the document, the name of the person who prepared the document, the name of the recipient of the document, and the subject matter of the document. A copy of the document may be provided, in lieu of an answer, to that portion of the Interrogatory that it answers, where labeled as to which Interrogatory it is responsive.
  - D. meetings and events, list all identifying features, including date, place and participants.
  - E. other information, means provide the information requested.
3. "Date" shall mean the exact date, month and year, if ascertainable, or if not, the best available approximation including relationship to other events.
4. "BPU" means the New Jersey Board of Public Utilities and its employees and Commissioners, and also includes the Division of the Ratepayer Advocate and its employees.
5. "Concerning" and "addressing" mean relating to, referring to, describing, evidencing or constituting.
6. "Applicants" means the PSE&G, a New Jersey public utility, and also includes where necessary PJM as witness for PSE&G, and PPL as Pennsylvania applicant, and all principals, partners, members, representatives, employees, agents, contractors, officers, directors, affiliates and related companies.
7. "Document" means writings, drawings, graphs, charts, photographs, phono-records, and other data compilations from which information can be obtained and translated, if

necessary, through electronic devices into reasonably usable form, and other tangible things within the scope of the discovery rules.

### **INTERROGATORIES**

1. Direct, p. 9, states your testimony is regarding "the levels of 60-hertz EMF." Did you do any testing, modeling or analysis of EMF above 60-hertz, particularly those harmonics above 1,000 hertz?
2. Direct, p. 9, regarding "the levels of 60-hertz EMF" in your career, what testing have you completed regarding EMF levels of high harmonics?
3. Direct, p. 9, regarding "the levels of 60-hertz EMF" in your career, what education have you completed regarding EMF levels of high harmonics?
4. Direct, p. 9, regarding "the levels of 60-hertz EMF" in your career, what research have you completed regarding EMF levels of high harmonics?
5. Direct, p. 4, l. 22, you refer to NIEHS. At what level of mG does the NIEHS recommend exercising the precautionary principle?
6. Direct, p. 6, l. 15, you refer to the direction of the powerflow as a factor in EMF levels. What direction will the power flow on these lines? Will it ever flow in the opposite direction? If so, describe probability and the type of event causing such a power flow.
7. Direct, p. 6, l. 20, regarding modeling, for the existing 230kV and proposed 230/500kV, for each, identify the line, voltage, MVA and amperes used in this modeling.
8. Direct, p. 6, l. 20 et seq., it appears that the A rating was not used. Is this correct, and if so, why?
9. Direct, p. 6, l. 20 et seq, it appears that the peak current was not used. Is this correct, and if so, why?
10. Direct, p. 6, l. 21, do you expect any change in utilized capacity of the lines going forward from 2-13?

### **EXHIBIT KGK-2 QUESTIONS**

11. Direct p.7, l. 5-7, identify the input parameters and values for each, including but not limited to those specifically named.
12. Direct, p. 7, l. 5-7, identify the minimum and maximum current for existing 230kV line, and proposed 230kV and 500kV lines.
13. Direct, p. 7, l. 5-7, how often and for how long is "peak demand" each year?

14. Direct, p. 7, l. 5-7, is heavy line loading typically at peak or off peak?
15. Direct, p. 7, l. 5-7, is heavy line loading typically at a time when people living next to the line would be expected to be in their homes, i.e., nighttime?
16. Direct, p. 8, l. 1-8, calculations were provided for median current levels. Provide the same information for maximum levels and a level midway between the median and the maximum.
17. Direct p. 8, l. 9-17, what dates were measurements taken of the existing Roseland-Bushkill line?
18. Direct, p. 8, l. 9-17, what current was on the lines at that time?
19. Direct, p. 8, l. 9-17, was current typical or was it reduced for some reason, i.e., transmission or substation construction in the area, etc.
20. Direct, p. 8, l. 9-17, identify maximum current, and provide calculations for maximum current, on the Roseland-Bushkill line.
21. Direct, p. 9, l. 3-17: Is a level of 23-32 mG safe? Is a level of 29-57mG safe? Is a level of 12-20 safe? Is a level of 7 mG safe? Is a level of 38-42 mG safe? Is a level of 19-21 mG safe?
22. Direct, p. 10, l. 1-10, for maximum current of the lines at 3000 amperes for the 500kV and 200 amperes for 230kV, is that 200 number correct or is it missing a zero?
23. Direct, p. 10, l. 1-10, is it correct that 3000 amperes is for each circuit of the 500kV line?
24. Direct, p. 10, l. 1-10, if the 500kV current is 3000 amperes, is that 3000 amperes per phase quad bundled for the circuit, i.e., 4 conductors per phase each running in that circuit at 3000 amperes?
25. Direct, p. 10, l. 1-10, what is MVA of 500kV line for each separate phase of the bundled conductors, and the total MVA when they are quad bundled.
26. Direct, p. 10, l. 1-10, is it correct that 200 or 2000 amperes is for each circuit of the 230kV line?
27. Direct, p. 10, l. 1-10, if the 230kV current is 200 or 2000 amperes, is that 200 or 2000 amperes per phase twin bundled for the circuit, i.e., 2 conductors per phase each running in that circuit at 200 or 2000 amperes?
28. Direct, p. 10, l. 1-10, what is MVA of 230kV line for each separate phase of the bundled conductors, and the total MVA when they are twin bundled?

29. Direct, p. 10, l. 13-16, what was purpose and rationale for the limits on electric field requirements established by the New Jersey Department of Environmental Protection?
30. Direct, p. 10, l. 13-16, did PSE&G comment on this limit?
31. Direct, p. 10, l. 13-16, provide citation to this regulation.
32. Direct, p. 12, l. 1-10, what are minimum, median and maximum noise estimates for substation noise, at substation footprint perimeter and property boundary.

### **REQUESTS FOR THE PRODUCTION OF DOCUMENTS**

1. Provide copies of the numerous EMF EPRI handbooks and course materials you have authored and coauthored.
2. Provide copies of all EPRI studies regarding EMF over the last 15 years.
3. Provide any and all studies regarding 60 hertz high harmonics and EMF.
4. Provide any and all comments of PSE&G on this rulemaking or other process establishing this electric field requirement.

These Interrogatories and Request for Production of Documents are ongoing. If your answers should change, or if new information becomes available, please update these responses as soon as possible.

Dated: May 14, 2009



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