

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 PAUL F. McGLYNN**

Stop the Lines hereby makes the following Interrogatories and Requests for the Production of Documents of Paul F. McGlynn, PJM, as 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 addresses below. Stop the Lines requests that responses also be provided electronically to [overland@legalelectric.org](mailto:overland@legalelectric.org) and [info@stopthelines.com](mailto:info@stopthelines.com).

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

If an Interrogatory or Production Request would best be answered by PJM's Steven R. Herling, or John M. Reynolds or Esam A.F. Khadr, please so state, and refer to that party for response.

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

Some answer to the Interrogatories may be contained within PJM documents. If the answer is available in a PJM or other document, provide copy of document and specific citation as response.

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. How long have you been chair of the PJM TEAC?
2. Direct, p. 1-2 - Explain the intersection of "the baseline reliability analysis with the market efficiency" analysis, and address compatible aspects, conflicting aspects, and incompatible aspects.
3. Direct, p. 3 - When you state you've been asked to "demonstrate the electrical need," provide a map showing Susquehanna-Roseland need locations and areas; indicating type of need, i.e. load service, interconnection, line from A-B has n-1 violation, export, etc..
4. Direct, p. 3, l. 7-12, explain the difference between "electrical need for the New Jersey segment" as provided in your testimony from "electrical need" testimony provided by Herling, Reynolds and Khadr.
5. Direct, p. 3, l. 8 and 11, explain distinction between "New Jersey segment" as used in line 8 and "these transmission line segments" as used in line 11.
6. Direct, p. 3, l. 14, would you agree that the focus of RTEP is transmission expansion? Explain your answer.

7. Direct, p. 4 - new generation. Is this all generation in the PJM queue, other queues, generation with an Interconnection Agreement, or some other generation?
8. Direct, p. 4 - developing trends are incorporated over what time period?
9. Direct, p. 4 - Identify developing trends recognized by PJM, i.e., decreased demand related to economic downturn, decreased MWhr sales, mandated DSM, mandated carbon tax, etc., and for those recognized by PJM in its forecasting, address impacts, with specificity. For those not included in the forecasting, explain why they are not included.
10. Direct, p. 5 - explain the relationship between "critical system conditions" and "deliverability" test procedures.
11. Direct, p. 6 - If n-1-1 criteria is used as the standard rather than n-1, is the system more robust? If system is "more robust," what is the impact on transfer capacity?
12. Direct, p. 7 - Identify with specificity/citation the authority and origin of requirement that "energy must be deliverable from the aggregate of the available capacity resources to load," i.e., FERC, NERC, etc.
13. Direct, p. 7 - Identify with specificity/citation the authority and origin of requirement that "capacity resources within a given electrical area must, in aggregate, be able to be exported to other areas of the PJM region," i.e., FERC, NERC, etc.
14. Direct, p. 7 - Identify any and all localized capacity emergency or deficiency.
15. Direct, p. 7 - are there areas where generation is not exportable to areas of PJM?
16. Direct, p. 8 - Load deliverability - how does PJM's load deliverability test take local generation into account? For analysis, is local generation presumed off line?
17. Direct, p. 8, does PJM utilize a system of economic dispatch?
18. Direct p. 8, in a system of economic dispatch, how is generation selected for dispatch? What role does price pay?
19. Direct, p. 8, where price determines dispatch, what factors are included in price, i.e. transmission infrastructure cost, transmission service cost, reactive power, line loss, etc. Provide citations and tariff.
20. Direct, p. 8, identify ways that a localized capacity emergency or deficiency can be satisfied that do not involve transmission.
21. Direct, p. 8, what non-transmission alternatives have been considered for addressing the localized capacity emergencies or deficiencies identified in Interrogatory 14.

22. Direct, p. 8, how does the PJM load deliverability test measure reliability as defined by NERC?
23. Direct, p. 8, how does the PJM generator deliverability test measure reliability as defined by NERC?
24. Direct, p. 9, are there means other than transmission recognized by NERC to address a generation capacity emergency?
25. Direct, p. 9, are there means other than transmission recognized by NERC to address a generation capacity emergency?
26. Direct, p. 9, do NERC reliability criteria require deliverability to anywhere in the PJM system?
27. Direct, p. 9, how are anticipated benefits of demand side management and conservation activities determined?
28. Direct, p. 9, If demand side management and conservation lowers peak, what is the impact on available energy in the "valleys" below peak?
29. Direct, p. 9, what local criteria is there regarding the need for the Susquehanna-Roseland line.
30. Direct, p. 9, what New Jersey specific criteria is there regarding need for a transmission line?
31. Direct, p. 9, does a higher degree of reliability increase opportunities for economic transactions?
32. Direct, p. 9, to what extent are generator Interconnection Requests a driver of the Susquehanna-Roseland Projects?
33. Direct, p. 9, to what extent are transmission Interconnection Requests a driver of the Susquehanna-Roseland Projects?
34. Direct, p. 9, l. 14-17. regarding inclusion of queued generation in the RTEP analysis, is it correct that generators with FSA are included if they contribute to deliverability problems, but not if they relieve system problems?
35. Direct, p. 9, l. 20-22, explain distinction between certainty of connection for those generators contributing to deliverability problems and the certainty of connection for those that relieve system problems?

36. Direct, p. 9, l. 20-22, what is impact on system analysis where only those generators contributing to deliverability problems are considered?
37. Direct, p. 9, l. 20-22, regarding deliverability,
  - Are existing generators subject to the requirement that energy be deliverable to any other area of PJM?
  - Are new generators requiring interconnection?
  - Is this a consideration for “unit commitment”
  - Is this a consideration of interconnection studies?
38. Direct, p. 9, l. 20-22, how does the analysis account for the modeling disparity between those generators contributing to deliverability problems and those that relieve system problems to protect against a skewing of results towards overbuilding?
39. Direct, p. 9, l. 20-22 - is there an upper bound to robustness of the grid?
40. Direct, p. 10, chart – where 5% of projects with Facility Study Agreements drop out, and 95% go forward, and where 4% of projects with Interconnection Service Agreements drop out and 96% go forward, why is there an impact-based distinction, as explained in Interrogatory 34, for that 1% that may drop out?
41. Direct, p. 10, chart – provide the names and queue numbers of the projects that were considered for purposes of creating this chart, i.e., the underlying data.
42. Direct, p. 10, chart – provide current information explaining the status of projects that were considered for purposes of contributing to deliverability problems referenced and for projects that were considered for purposes of relieving system problems.
43. Direct, p. 11, what projects were the focus of "retooling" studies since and including 2005?
44. Direct, p. 11, l. 14-19, based on powerflows or other analysis, identify sources of power flowing into line by generator (where identifiable), MVA and percentages.
45. Direct, p. 11, l. 14-19, identify all sources of power, by MVA, flowing into Susquehanna substation. Provide powerflows.
46. Direct, p. 11, l. 14-19, identify MVA into and out of the Jefferson substation.
47. Direct, p. 12, l.1 - states "initially." What is planned or what is being considered in the future?
48. Direct, p. 12, l. 9-10, states you supervised the "generator deliverability" tests -- for what generators? List generators and identify by county and state, summer nominal capacity in MVA, and fuel.

49. Direct, p. 12-13, lists "criteria violations" expected to occur beginning in 2012. Of these "criteria violations," which will be eliminated SOLELY by the Susquehanna-Roseland line and which require other changes to the grid. Specify which criteria violations and which additional changes are necessary.
50. Direct, p. 12-13, of the criteria violations identified, what other projects in RTEP, if modeled, have an impact on these identified violations.
51. Direct, p. 13-14, Chart A, identifies load deliverability violations. Provide chart identifying the generation source and sink for these violations, and identify source by name, county and state, capacity in MVA and fuel.
52. Direct, p. 15-16, regarding potential outages, does this analysis take into account TLR procedures or is it a vision of "a world without TLRs."
53. Direct, p. 16 addresses reliability and outages. In the last five years, identify all transmission outages.
54. Direct, p. 16, are SAIDI, SAIFI and CAIDI reliability indicators for transmission or distribution?
55. Direct, p. 17, regarding load pockets, provide individual substation summer and winter peak loading for 2005-2009 for the substations along the existing Susquehanna-Roseland 230kV route.
56. Direct, p. 17-18, if a 3,000MVA capacity is assumed, and where transmission is presumed the "answer," identify the estimates of potential capacity of local generation, demand response, conservation, etc. for each alternative considered.
57. Direct, p. 18, 7-17, can overloading be prevented by reducing the load on the lines?
58. Direct, p. 18, l. 7-17, if the Susquehanna-Roseland line is built, what is its expected capacity over the next 20 years?
59. Direct, p. 18, 18-23, regarding the 2003 blackout:
  - What were the precipitating factors of the August 14, 2003 blackout?
  - Was there a high transfer volume immediately prior to the blackout?
  - Were there signs of problems before the blackout?
  - Did operators respond quickly and immediately?
  - Did operators immediately follow operating procedures?
  - Was line sag due to heat a factor in the line connecting with trees?
60. Direct, p. 19, l. 10, does "all facilities" mean that in the modeling, all generation is running at full capacity? If not, what does "facilities" mean in this context?

61. Direct, p. 19, l. 17, what is "PJM load deliverability criteria." Does NERC have a mirroring load deliverability criteria?
62. Direct, p. 19, l. 19-20, what is "PJM Generator Deliverability criteria." Does NERC have a mirroring generator deliverability criteria?
63. Direct, p. 20, l. 5-11, since 2007, there have been significant decreases in demand. Provide PJM Annual, Financial and quarterly reports for 2005-2009, and same for all the "major utilities" named on p. 20.
64. Direct, p. 20, l. 5-11, how has forecasting taken the demand decreases identified above into account?
65. Direct, p. 20, l. 5-11, over the last 10 years, annually, how much lower has winter peak been than summer peak?
66. Direct, p. 20, l. 5-11, what is impact on size, type and timing of decreased demand?
67. Direct, p. 21, l. 3-4, where "consumer demand... is the main factor causing the electrical need for these facilities," and where consumer demand has dropped significantly, as reflected in answer to #61 above,
  - What is the impact on need for these facilities?
  - What is threshold at which the need is pushed far enough into the future to postpone Susquehanna-Roseland?
  - What is threshold at which the need is such that the current voltage and/or capacity is not needed and a lower voltage or capacity line would suffice?
68. Direct, p. 21, l. 16-17, claims to identify a 230kV system deficiency. What difference would reconductoring this 230kV system make in the overload prediction? If ACSS were used (and associated equipment upgraded as necessary), what impact would that have on system capacity.
69. Direct, p. 21, l. 16-17, identify lines in PJM with ACSS conductor. If ACSS were used (and associated equipment upgraded as necessary) throughout PJM, what impact would that have on system capacity?
70. Direct, p. 21, l. 19, states alternatives were evaluated and reviewed with stakeholders. Identify the alternatives referenced here. Identify the stakeholders referenced here. Were landowners invited to review the alternatives? What state agencies were invited to review the alternatives?
71. Direct, p. 22-23, the changes referred to seem to be generator or supply side related.
  - How was demand side information updated?
  - Was the 2008 RTEP developed with 2007 or 2008 information?
  - What assumptions were updated -- identify them and provide the "before" and "after."

- Was the demand information identified above in #61 above included in the updated assumptions?
72. Direct, p. 23, l. 15, states that the "analysis showed multiple violations on many of the same lines identified in PJM's earlier assessments." "Many" of the same lines is not all. List lines that were not identified in this update.
  73. Direct, p. 24, l. 17-23, states that "consideration was given to installing new conductors so that the overloaded facilities were capable of transporting more power." If transporting more power was not a driver to this lines, would reconductoring be viable?
  74. Direct, p. 24, l. 17-23, reconductoring as an alternative "was dismissed given the number of facilities that would need to be upgraded." How long has it been since the 230kV system was reconductored? Identify 230kV system reconductoring efforts over last 20 years.
  75. Direct, p. 24, l. 22-23, identify with specificity the long-term solutions to the reliability issues that had been identified that would not be relieved with reconductoring.

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

1. Provide agendas, minutes, presentations and underlying reports for TEAC from 2005-present.
2. Provide copies of any documents relating to process issues in PJM workgroups, committees or subcommittees, including but not limited to TEAC.
3. Provide map showing need as requested in Interrogatory 3.
4. Provide copies of all studies showing localized capacity emergency or deficiency identified in Interrogatory 14.
5. Provide copies of all studies showing inability to export to all areas of PJM, as identified in Interrogatory 15, including but not limited to generator interconnection studies.
6. To the extent that generator and transmission interconnection requests are a driver for the Susquehanna-Roseland project, provide queue listing and interconnection studies, draft and final.
7. Provide copies of all RTEP "retooling" studies.

8. Provide NERC and/or PJM reports for every transmission blackout or outage from 2003-present.
9. Provide SAIDI, SAIFI and CAIDI reports for the PSE&G area for 2006-present.
10. Provide copies of the 2003 Final Blackout Report.
11. Provide copy of PJM and NERC load deliverability criteria.
12. Provide copy of PJM and NERC Generator Deliverability criteria.
13. Provide demand forecasts taking into account downturn reflected in PJM and major utilities financial filings.
14. Provide copies of any and all other documents that are referenced in the responses to any of the Interrogatories set forth above or created or otherwise obtained to facilitate responses thereto.

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 13, 2009



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