

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 STEVEN R. HERLING**

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 David Slaperud, Stop the Lines, at the address below. Responses may be provided electronically to [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 Paul F. McGlynn or John M. Reynolds, or PSE&G's 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 PJM 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. "Date" shall mean the exact date, month and year, if ascertainable, or if not, the best available approximation including relationship to other events.
3. "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.
4. "Concerning" and "addressing" mean relating to, referring to, describing, evidencing or constituting.
5. "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.

6. "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.
7. "Identify" means (1) for a person, list the name, title, business affiliation(s), business address(es), telephone(s) and fax number(s), (2) for meetings and events, list all identifying features, including date, place and participants and (3) for other information, means provide the information requested.

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

1. Produce every document in PJM's possession regarding planning for the Susquehanna-Roseland transmission line.
2. Produce the full PJM generation interconnection queue as of January 12, 2009
3. Produce copies of all PJM RTEP reports from 2005-present, RTEP Sub-Region Committee meeting agendas, minutes, presentations and other RTEP reports 2005-present
4. Provide all documentation of analysis of non-transmission alternatives considered for Susquehanna-Roseland line.
5. Provide PJM transmission map highlighting current NERC n-1 violations, and chart detailing those violations.
6. Copies of all PJM documents, including but not limited to filings, comments, remarks, testimony, filings, agendas, reports, meeting preparation, communications within PJM and between PJM and FERC, etc. regarding FERC Docket No. AD-05-3-000, including those for FERC and/or PJM meetings, workgroups, technical conference and subsequent workgroups.
7. Provide every document in PJM's possession regarding Project Mountaineer, including but not limited to FERC testimony, powerpoints, PJM planning and reliability studies, PJM policy documents, etc.
8. Provide copies of all studies regarding benefits of economic dispatch and PJM planning for economic dispatch, including inhouse and independent consultant studies commissioned by PJM.
9. Provide data from 2005-present showing PJM, utilities' and states' monthly import/export; and showing energy surplus/deficit without import/export to other states.

10. Provide economic analysis and studies, including any Market Efficiency Analysis, regarding recipient markets for electricity sales in PJM, including, but not limited to, electricity transmitted over Susquehanna-Roseland line.
11. Provide documentation of PJM reserve margins from 2005 to present, including but not limited to NERC reports, PJM internal quarterly calculations, etc.
12. Provide documentation of demand response potential for PSE&G, New Jersey and PJM areas.
13. Provide copies of FERC or other tariffs regarding line losses in the PJM system and documentation of annual cost of line loss from inception of tariff to present.
14. Provide copies of NERC Reliability Assessments, 2003-present.
15. Provide copies of all PJM Comments, Supplemental Comments, and Testimony to DOE regarding NIETC and all exhibits and attachments.
16. Provide copies of PJM filings with FERC, FERC Orders and PJM tariffs regarding any aspect of the Susquehanna-Roseland line.
17. Provide documentation of any and all violations of NERC reliability standards, including TLRs by category, and FERC Orders, Consent Agreements, fines, etc.
18. Provide documentation of state New Jersey and Pennsylvania capital cost recovery mechanisms available for transmission.
19. Provide listing of the claimed 22,000MW of specific generation projects enabled by this planning process, identified by location (county and state) and fuel type.
20. Provide PJM market studies, including market analysis, benefits analysis, both prior to enactment of PJM market, and subsequent, showing economic benefits expected and economic benefits realized.
21. Provide copies of market efficiency studies related to Susquehanna-Roseland line and/or Pennsylvania, West Virginia or other generators west of New Jersey.
22. Direct, p. 28, refers to January 2008 load forecast. Provide PJM January 2009 load forecast, and PJM actuals, by utility, for 2009 thus far (monthly, and daily if available).
23. Provide documentation of wind projects in queue in Mid-Atlantic area, including manufacturer rated capacity, PJM rated capacity, location and inservice date.
24. Provide PJM studies showing MW deficiencies in the region, identifying location of deficiencies and projected need.

25. Provide all PJM economic studies of benefits of RTOs.
26. Re: Direct, p. 36, "PJM's planning and expansion process was also specifically designed to encourage market-driven operating and investment actions for preventing and relieving congestion." Provide all documentation of market-driven initiatives and market benefits of Susquehanna-Roseland line.
27. Provide studies, TEAC group reports, and any other documents regarding reliability criteria violations resolved solely by Susquehanna-Roseland line.
28. Provide maps, identifying source, showing transmission planned or in planning process which could or would connect with the Susquehanna substation.
29. Provide maps, identifying source, showing transmission planned or in planning process which could or would connect with the Roseland substation
30. Provide tariffs showing distribution of costs of the Susquehanna-Roseland line to the various participating utilities.

### **INTERROGATORIES**

- 1 Direct, p. 1, l. 17-18, refers to generation resources. How were queued projects in NJ, NY and North East region considered to determine whether project was needed, and distinctly, renewable generation?
- 2 What are the various stages in the PJM queue process, and how many MW are at each stage, i.e., Feasibility Studies, System Impact Studies, etc., identified by location (county and state) and fuel type.
- 3 Re: Regional Transmission Expansion Plan (RTEP). Explain the term "Expansion" as used in this context.
- 4 Direct, p. 4, regarding determining transmission solutions needed to assure meeting NERC Reliability Standards. What non-transmission solutions were considered and what was relative timeline of each alternative considered? Conservation? Local generation? Efficiency and load shifting? Reconductoring? SmartGrid?
- 5 Direct, p. 4, are any areas/lines affected by the Susquehanna-Roseland in violation of NERC n-1 criteria at present that the Susquehanna-Roseland will address?
- 6 Direct, p. 4, for those areas with NERC n-1 reliability violations, what other options exist for correcting these violations, were they considered, and if so, why rejected? If not

considered, address feasibility of these alternatives. Include options such as reconductoring, VAR compensation, targeted siting of generation, SmartGrid, etc.

- 7 Direct p. 4, regarding stakeholder review and participation and the open, transparent forum. List the stakeholders, and identify by company or association and whether stakeholders are agency, public advocacy or environmental groups.
- 8 Direct, p. 3, l. 5-6, you state you testified in the Wva, Va, and PA TrAIL proceedings.
  - a. In your testimony in that proceeding, did you reveal information regarding a FERC conference which you attended in 2005, in Charleston, West Virginia, the subject of which was moving large amounts of coal generation to the east?
  - b. Did you attend this meeting?
  - c. What were your contributions to this meeting, i.e., preparations, comments, testimony, statements, initiatives, etc?
  - d. Following this meeting, what follow up actions were taken by you and/or PJM?
  - e. Please describe PJM's efforts to address the issue of moving large amounts of coal generation to the east.
- 9 Direct p. 7, regarding benefits accrued to PJM members through economic dispatch. Please elaborate on economic benefits, including dollar figures for each of the PJM members and benefits outside of PJM membership.
- 10 Direct, p. 7, regarding economic dispatch:
  - a. what is energy import and export status of state of New Jersey and what is energy surplus/deficit of new Jersey without import/export from/to other states?
  - b. what is New Jersey energy price without import/export from/to other states?
  - c. what is generation capacity surplus/deficit of New Jersey without import/export from/to other states?
- 11 Direct, p. 9, where increase of demand response provides an additional 1,800MW:
  - a. What is total MW of demand response including this 1,800MW?
  - b. What percentage of total PJM generation does total demand response represent?
- 12 Direct, p. 9, how is reduction in operating reserve costs as described here different from reduction in operating reserves described under "Reliability Savings?" Identify PJM reserve margins and reserve margin requirements from 2002-2008, and projections for 2009-2020.
- 13 Direct, p. 11, addresses the efficiency of the grid.
  - a. Explain how PJM addresses line loss. What is cost of line loss in PJM annually, in dollar figure and MW?
  - b. How will the addition of the Susquehanna-Roseland line will affect line loss in PSE&G, New Jersey and PJM territories.

- c. How will addition of the Susquehanna-Roseland line affect reactive power requirements in PJM?
- 14 Direct, p. 13 addresses NERC reliability standards.
- a. Where does NERC get its information regarding PJM?
  - b. What is the NERC reliability assessment of the PJM territory as of the most recent reliability assessment?
  - c. What is the NERC reserve margin requirement?
  - d. What is actual reserve margin for 2008 Winter and Summer peak?
- 15 Direct, p. 14 addresses PJM responsibility for wholesale markets.
- a. Since 2005, what has been the impact of institution of wholesale markets in terms of "benefits" to members, expressed in dollar figure?
  - b. What has been the impact of institution of wholesale markets in terms of percentage of MWhr of generation by coal plants?
  - c. Compare MW of coal capacity in PJM as percentage of all generation.
- 16 Direct, p. 15, claims that forecasted load growth is a primary factor considered in PJM planning. Provide month by month actual demand figures for 2005-present, including as much 2009 information as is available.
- 17 Direct, p. 15-16, explain how energy policy issues are factored into PJM planning and proposals, specifically including the New Jersey Energy Master Plan.
- 18 Direct, p. 18, addresses "RTEP projects ordered by PJM Board." What is origin, nature, and reach of authority of PJM board to "order" transmission? Compare PJM authority to "order" transmission with FERC authority to order transmission.
- 19 Direct, p. 18, states that TrAIL, PATH, Susquehanna-Roseland, MAPP, taken together, will enhance reliability and economic benefits. Describe with specificity how these projects will enhance reliability and specify type of reliability impact and the economic benefits these projects will provide.
- 20 Direct, p. 18-19 addresses role of FERC. What tariff changes had FERC authorized regarding the Susquehanna-Roseland project?
- 21 Direct, p. 18-19 regarding NERC reliability standards.
- a. How is reliability defined by NERC?
  - b. Given this definition, what type of reliability concerns does Susquehannah-Roseland line address and how does it address them?
  - c. From 2005 to present, identify reliability standards violation, identified by violating element/infraction and category of violation.

- 22 Direct, p. 21, you state that PPL and PSE&G are respectively allocated 5.37% and 7.61% of transmission costs.
- a. Identify allocation of balance of these transmission costs (utility and percentage).
  - b. Are these costs assessed upon energization of line and upon use, or immediately, or some other time?
  - c. Until that time of assessment, identify source of capital for this project.
- 23 Direct p. 21-22, identify any state, PJM or utility mechanism for recovery of construction costs prior to or in tandem with FERC recovery, such as statutory recovery of construction work in progress, and/or some other recovery scheme?
- 24 Direct, p. 23, states that the planning process has enabled more than 22,000MW of generation to be interconnected. Provide breakdown of MW of generation interconnection based on fuel type, and location, year by year from 2004 to present.
- 25 Direct p. 23 refers to construction of transmission "earlier than would have been required based on reliability needs" if justified by benefits derived through greater efficiency in energy and capacity markets. Provide examples of transmission projects built prior to reliability need based on a market justification. Is Susquehanna-Roseland a project "justified by benefits derived through greater efficiency in energy and capacity markets?"
- 26 Direct, P. 23 refers to market efficiency studies and northern Pennsylvania coal projects:
- a. Is the Susquehanna-Roseland project supported with economic/market analysis?
  - b. What marketing benefits does the project provide to northern Pennsylvania coal projects?
  - c. What additional marketing options do northern Pennsylvania coal projects have?
- 27 Direct, p. 24 refers to studies showing overloads of lines in 2012-2013 time frame. What did model identify as cause of these overloads?
- 28 Direct, p. 25, refers to clusters of baseload generation to be served by new transmission lines.
- a. Provide listing of baseload coal generation facilities and identify which new transmission lines are to serve these new generators.
  - b. Provide listing of wind generation facilities and location, including PJM rated MW
  - c. Identify which transmission projects are proposed to serve these generators.
- 29 Direct, p. 25, refers to increasing west to east load flows. Does electricity ever flow east to west? If so, how often and at what times, under what conditions?
- 30 Direct, p. 26, states that new transmission must be constructed to grow robust energy markets. How is capital cost of transmission factored into transactions under economic dispatch?

- 31 Direct, p. 28, regarding load forecasts and changing assumptions, many utilities have reported significantly declining demand for electricity, substantive declining demand such that infrastructure projects are being reconsidered<sup>1</sup>.
- a. Has PJM updated demand forecasts based on reduced actual demand of 2008 and 2009?
  - b. Has PJM altered size, type and/or timing of Susquehanna-Roseland line based on reduced demand, and if so, how? If not, why?
  - c. Direct, p. 29 states that additional supplemental analysis will need to be completed. Please provide this supplemental analysis
- 32 Direct, p. 30, raises the issue of need for Susquehanna-Roseland based on congestion. Are market transactions a cause of congestion?
- 33 Direct, p. 30, are energy and capacity costs to PJM customers costs based on instances where less costly power available but not deliverable due to congestion? What fuel type is lower cost generation – provide scale?
- 34 Direct, p. 31, regarding NERC requirements to address criteria violations
- a. Does NERC have a policy regarding generation solutions?
  - b. Does NERC have a policy regarding distributed generation as solution for criteria violations?
  - c. Has NERC made any statements regarding ability of local generation to address reactive power, congestion and local load serving issues? Provide citations.
- 35 Direct, p. 32, raises increased transfer capacity as a criteria for selection of the Susquehanna-Roseland option.
- a. Identify interface(s) where Susquehanna-Roseland will increase transfer capacity.
  - b. What is current transfer capacity of each individual interface?
  - c. By how many MW is the transfer capacity increased by S-R?
  - d. For each option considered, what was expected transfer capacity increase for each of the interfaces affected.
- 36 Direct, p. 32 regarding non-transmission solutions:
- a. What options were considered?
  - b. Was off-shore wind considered?
  - c. Was off-shore wind with gas backup (dispatchable), as selected by Delaware PSC, considered?

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<sup>1</sup> "The economic downturn has delayed the need for new infrastructure, but has not eliminated it," PJM spokesman Ray Dotter said. See U.S. power use tumbling with recession, Reuters, March 30, 2009, <http://www.reuters.com/article/domesticNews/idUSTRE52T4SW20090330?sp=true> and Surprise drop in power use jolts utilities, Wall Street Journal, November 21, 2008, <http://online.wsj.com/article/SB122722654497346099.html>

- 37 Direct, p. 32, suggests that new generation has been slow to develop. What is PJM's need projection, annually, for next 15 years, and how many MW are in the PJM queue, listed in the various queue stages?
- 38 Direct, p. 32, Alternatives:
- a. What reconductoring options were considered, specifically, and what was the cost.
  - b. Could reconductoring obviate some or all of the need for S-R?
  - c. Given many state's conservation mandates, when compared with PJM's anticipated MW need forecast, what part of PJM's MW need could be met by DSM and conservation?
- 39 Direct, p. 33, addresses the transmission capacity. Provide specifications of Susquehanna-Roseland line with specificity, i.e., identify whether ACSS or ACSR, size of conductor, whether bundled, whether double circuit, anticipated current to flow over line, SIL and MVA, etc.
- 40 Direct, p. 35, states that FERC believed there would be competitive advantages resulting from RTOs.
- a. In PJM's experience, have competitive advantages been realized?
  - b. If there are competitive advantages, from 2007 to present, what parties have realized these advantages and in what dollar amount?

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: April 3, 2009

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David Slaperud  
P.O. Box 398  
Tranquility NJ 07879  
973-940-2976  
[info@stophelines.com](mailto:info@stophelines.com)