

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-1  
WITNESS(S): KHADR  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
KHADR EXPERIENCE

QUESTION:

Please reference page 3, line 5, of the Testimony of Esam A. F. Khadr (“Khadr Testimony”) and provide a copy of “California Energy”.

ANSWER:

See attached exhibit PALS-1.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-2  
WITNESS(S): KHADR  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
KHADR EXPERIENCE

QUESTION:

Please reference page 3, line 10, of the Khadr Testimony and provide a copy of Mr. Khadr's testimony on behalf of "PJM Transmission Owner Group."

ANSWER:

The testimony can be found in the eLibrary of the FERC website under FERC Docket No. ER06-456-006 dated May 14, 2008.

<http://www.ferc.gov/docs-filing/elibrary.asp>

RESPONSE TO FREDON PARENTS AGAINST  
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REQUEST: PALS-3  
WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
KHADR EXPERIENCE

QUESTION:

Please reference page 3, line 14, of the Khadr Testimony and provide a copy of Mr. Khadr's testimony on behalf of "Lower Delaware Valley".

ANSWER:

The testimony can be found in the eLibrary of the FERC website under FERC Docket No. EL05-50 dated October 3, 2006 and November 13, 2006.

<http://www.ferc.gov/docs-filing/elibrary.asp>

RESPONSE TO FREDON PARENTS AGAINST  
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REQUEST: PALS-4  
WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
NEED

QUESTION:

Please reference the EAK-2 drawing of the Khadr Testimony and explain the meaning of the symbols on the Essex ó Aldene and Bayway ó Linden lines.

ANSWER:

They are phase angle regulators (PARs), which control the flow of power on a transmission circuit.

RESPONSE TO FREDON PARENTS AGAINST  
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REQUEST: PALS-5  
WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
NEED

QUESTION:

Please reference the Khadr Testimony and provide a more comprehensive drawing than EAK-2 which shows the interconnection of the all lines as they are now – without the proposed Susquehanna – Roseland project.

ANSWER:

See Page 20 of the PJM TEAC presentation (link provided below):

<http://www.pjm.com/Media/committees-groups/committees/teac/20081105-reliability-analysis-update.pdf>

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-6  
WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
NEED

QUESTION:

Please reference the Khadr Testimony and provide a more comprehensive drawing than EAK-2 which shows the interconnection of the all lines as they would be if the proposed Susquehanna – Roseland project were completed.

ANSWER:

See response to PALS-5.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-7  
WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
LOOPING

QUESTION:

Please reference page 8, line 8 of the Khadr Testimony and explain further the meaning of looping-in.

ANSWER:

Looping-in means to bring a circuit into and out of a switching station.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-8  
WITNESS(S): KHADR  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
NEED

QUESTION:

Please reference page 8, line 8 of the Khadr Testimony and explain more completely what is being referred to as the 500kV network.

ANSWER:

The 500kV network consists of the transmission circuits and switching stations that are operated by PJM at a nominal voltage of 500,000 volts.



RESPONSE TO FREDON PARENTS AGAINST  
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REQUEST: PALS-9  
WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
RELIABILITY; NEED; REDUNDANCY

QUESTION:

Please reference page 8, line 8 of the Khadr Testimony and explain more completely what is meant by “ensures redundancy of the 500kV network”.

ANSWER:

Redundancy refers to the duplication of the functionality or capability of a portion of the grid by the provision of additional transmission elements that are either directly or indirectly in parallel with existing facilities.

RESPONSE TO FREDON PARENTS AGAINST  
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REQUEST: PALS-10  
WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
RELIABILITY; NEED

QUESTION:

Please reference page 8, line 10 of the Khadr Testimony and explain more completely what is meant by future reinforcements of the JCP&L 230kV and 115kV system.

ANSWER:

In northwestern New Jersey JCP&L utilizes transmission circuits operated at 230kV and 115kV. If need is identified in the future, these lower voltage transmission circuits could be connected to the new 500kV switching station.

RESPONSE TO FREDON PARENTS AGAINST  
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REQUEST: PALS-11  
WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
RELIABILITY; NEED

QUESTION:

Please reference page 8, line 10 of the Khadr Testimony and explain more completely where the power for future reinforcements of the JCP&L 230kV and 115kV system would come from.

ANSWER:

Transmission upgrades are not identified to deliver specific generators or specific classes of generation. However, reinforcing the transmission grid will provide additional paths over which energy from all generation in PJM can flow to deliver energy to customers.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-12  
WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
NEED; OVERLOADS

QUESTION:

Please reference page 8, line 20 of the Khadr Testimony and state when the ties to the Roseland switching station will be overloaded.

ANSWER:

The ties will be overloaded starting in 2012.

RESPONSE TO FREDON PARENTS AGAINST  
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REQUEST: PALS-13  
WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
RELIABILITY; NEED

QUESTION:

Please reference page 9, line 1 of the Khadr Testimony and explain what is meant by a “strong” 500kV source.

ANSWER:

This circuit will be capable of bringing a large amount of power from other areas within the PJM system to the constrained area.

RESPONSE TO FREDON PARENTS AGAINST  
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REQUEST: PALS-14  
WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
PEAK CAPACITY

QUESTION:

Please reference the Khadr Testimony and regarding the existing 230kV line, what is its peak rated Amperage and Power capacity.

ANSWER:

It is not clear what is meant by “peak rated Amperage” and “Power capacity.”

Circuits are rated using a summer normal rating (SNR) and a four-hour short-term emergency rating (4HR) in MVA. These are provided below.

	<u>SNR</u>	<u>4HR</u>
Kittatinny – Newton	732 MVA	887 MVA
Newton – Montville	537 MVA	695 MVA
Montville – Roseland	422 MVA	538 MVA

RESPONSE TO FREDON PARENTS AGAINST  
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REQUEST: PALS-15  
WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
PEAK CAPACITY; POWER FLOW

QUESTION:

Please reference the Khadr Testimony and regarding the existing 230kV line, what is it's the typical Amperage and Power that it carries.

ANSWER:

What a circuit carries depends on many factors such as present system load level, generation dispatch patterns, system transactions, and equipment maintenance outages. There is no typical power flow.

See response to S-ENR-47.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-16  
WITNESS(S): CROUCH  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
CAPACITY; RELIABILITY

**QUESTION:**

Please reference the Khadr Testimony and regarding the proposed / replaced 230kV line, what is its maximum rated Amperage and Power capacity.

**ANSWER:**

It is not clear what is meant by "Power capacity." Notwithstanding,

Max line ampacity = 1,838 Amps per conductor which equates to 734 MVA for each conductor.

Total for line =  $1,838 \times 2 = 3,676$  amps or 1,468 MVA



RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-17  
WITNESS(S): CROUCH  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
CAPACITY; RELIABILITY

QUESTION:

Please reference the Khadr Testimony and regarding the proposed 500kV line, what is its maximum rated Amperage and Power capacity.

ANSWER:

It is not clear what is meant by "Power capacity." Notwithstanding,

Max line ampacity = 1,838 Amps per conductor which equates to 1,591 MVA for each conductor.

Total for line =  $1,838 \times 4 = 7,352$  amps or 6,367 MVA

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-18  
WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
RELIABILITY

QUESTION:

Please reference page 9, line 15 of the Khadr Testimony and provide a complete description of all possible scenarios that could result in dangerous situations. Please include single and multiple points of failure scenarios and completely describe all possible resultant failures.

ANSWER:

PSE&G objects to this question as ambiguous. Notwithstanding, the failure of one circuit may lead to failure of other circuits, causing cascading outages that could ultimately result in a brownout or blackout.

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
RELIABILITY; VOLTAGE TOLERANCE

**QUESTION:**

Please reference page 10, line 17 of the Khadr Testimony and state the voltage tolerance targeted by PSE&G at critical points within the network.

**ANSWER:**

**VOLTAGE LIMITATIONS**

	<u>Normal</u>			<u>Emergency</u>		
	<u>Max.</u>	<u>Min.</u>	<u>Variation</u>	<u>Max.</u>	<u>Min.</u>	<u>Variation</u>
<b><u>Transmission Nodes</u> (b)</b>						
<b>% of Nominal</b>	<b>105</b>	<b>95</b>	<b>5 (a)</b>	<b>105</b>	<b>95</b>	<b>5 (a)</b>

**Notes:**

- (a) The post transient voltage drop should be consistent with the voltage criteria currently used in actual system operation (i.e. no more than 5% voltage drop and a post contingency voltage of 0.95 per unit or higher).
- (b) Transmission Nodes are those NERC facilities that do not have any wholesale customers directly connected. An example of such a facility is the Deans Switching station. Those locations are governed by the PJM standard voltage criteria.

RESPONSE TO FREDON PARENTS AGAINST  
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WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
RELIABILITY; VOLTAGE LEVEL

QUESTION:

Please reference page 10, line 21 of the Khadr Testimony and more accurately define what voltage level is being referred to as a “critically low level”.

ANSWER:

Lower than 0.95 per unit voltages on the transmission system. See response to PALS-19.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-21  
WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
RELIABILITY

QUESTION:

Please reference page 11, line 18 of the Khadr Testimony and explain what is included in the definition of a “facility”.

ANSWER:

See NERC Glossary, [http://www.nerc.com/files/Glossary\\_12Feb08.pdf](http://www.nerc.com/files/Glossary_12Feb08.pdf)

RESPONSE TO FREDON PARENTS AGAINST  
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REQUEST: PALS-22  
WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
RELIABILITY; SYSTEM ELEMENT

QUESTION:

Please reference page 11, line 21 of the Khadr Testimony and explain what is included in the definition of a “system element”.

ANSWER:

See response to PALS-21.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-23  
WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
SIMULATION MODEL

**QUESTION:**

Please reference page 12, line 22 of the Khadr Testimony and detail the margin of error of the simulation model, all inputs to the simulation model, and all outputs of the simulation model.

**ANSWER:**

Margin of error of the simulation model:

The error magnitude depends on the extent of data inaccuracies and the robustness of the input assumptions. However, the RTEP process accounts for variability of these assumptions during the process and through its retools. See direct testimony of Steven R. Herling at page 27, line 3 to page 30, line 4 and direct testimony of Paul F. McGlynn at page 22, line 3 to page 23, line 16.

Simulation Input:

System buses and voltage levels; loads; generation real and reactive power ranges; shunt capacitors; shunt reactors; control buses; circuit data: resistance, reactance, charging, normal and emergency summer ratings; transformer data: resistance, reactance, type of control, fixed taps, tap range, normal and emergency summer ratings; PAR data; series reactors, series capacitors, event files, outage files and more.

Simulation Output:

Power flow, both real and reactive, on each circuit, bus voltage and angles, system losses, generating unit reactive output and more.

Inputs:

Load forecasts, retired generation, future generation, and firm transactions.

RESPONSE TO FREDON PARENTS AGAINST  
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REQUEST: PALS-24  
WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
RTEP; RETOOL

QUESTION:

Please reference page 15, line 19 of the Khadr Testimony and state all differences in results from the previous study and the 2008 retool.

ANSWER:

See the PJM RTEP reports listed below:

May 9, 2007, Page 49 (cover sheet has the incorrect date)

<http://www.pjm.com/~media/committees-groups/committees/teac/20070509-reliability-analysis-update.ashx>

Re-tool:

January 21, 2009, Page 3

<http://www.pjm.com/Media/committees-groups/committees/teac/20090313/20090313-reliability-analysis-update.pdf>

See also Table 3.2 and Map 3.3 of the 2007 RTEP Report and Table 4.2 and Map 4.3 of the 2008 RTEP Report. Links to these reports are found in response to PALS-25.



RESPONSE TO FREDON PARENTS AGAINST  
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WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
RTEP

QUESTION:

Please provide the results of all studies from the 1997 to-date.

ANSWER:

PSE&G objects to this question as overbroad, unduly burdensome, vague and ambiguous.  
Notwithstanding:

The RTEP report archives of the study results are located at  
<http://www.pjm.com/documents/reports/rtep-report.aspx>

TEAC presentation archives are located at  
<http://www.pjm.com/committees-and-groups/committees/teac.aspx>

RESPONSE TO FREDON PARENTS AGAINST  
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REQUEST: PALS-26  
WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
RTEP

QUESTION:

Please state in which year the need for the Susquehanna – Roseland project first appeared.

ANSWER:

The need for the Project was first identified by PJM in its 2007 RTEP analysis.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-27  
WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
ALTERNATIVES

QUESTION:

Please reference page 16, line 19 of the Khadr Testimony and state all “viable solutions/alternatives” that were considered.

ANSWER:

See the direct testimony of Paul F. McGlynn at page 24 and the direct testimony of Steven R. Herling at pages 32-33.

RESPONSE TO FREDON PARENTS AGAINST  
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REQUEST: PALS-28  
WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
RELIABILITY CRITERIA VIOLATIONS

QUESTION:

Please reference EAK-4b of the Khadr Testimony and explain what is meant by each of the following categories used in this exhibit:

- a. Criteria Violation,
- b. Contingency,
- c. Criteria test,
- d. Description of Upgrade,
- e. Upgrade In-Service Date.

ANSWER:

- a. Criteria Violation - Voltage magnitude, voltage drop and/or circuit loading that violates the NERC, PJM, and Transmission Owner criteria. A violation occurs when (1) under normal conditions, applicable Normal thermal, voltage or stability limits are violated; or (2) upon the loss of a single facility, applicable Emergency thermal, voltage or stability limits are violated. Such violations are described in NERC Reliability Standards TPL-001, 002 and 003. See <http://www.nerc.com/page.php?cid=2|20> and select "Transmission Planning."
- b. Contingency - Defined on page 15 of PJM Manual M35  
<http://www.pjm.com/~media/documents/manuals/m35.ashx>
- c. Criteria test - The test that is used to identify the criteria violation(s) in accordance with NERC, PJM, and Transmission Owner requirements. The test can include load deliverability, generation deliverability and n-1-1.
- d. Description of Upgrade - Proposed transmission solution
- e. Upgrade In-Service Date - The transmission upgrade is required to be constructed and placed in-service prior to that date.

RESPONSE TO FREDON PARENTS AGAINST  
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REQUEST: PALS-29  
WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
EAK-4B

**QUESTION:**

Please reference EAK-4b, page 5, b0489 of the Khadr Testimony and explain more completely the meaning of each category of b0489.

**ANSWER:**

See response to PALS-28.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-30  
WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
EAK-4B; CONTINGENCY

QUESTION:

Please reference EAK-4b, page 5, b0489 of the Khadr Testimony and state and completely explain the 'Contingency' of b0489.

ANSWER:

These are provided in Exhibit EAK-3a, 2nd Column.

RESPONSE TO FREDON PARENTS AGAINST  
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WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
EAK-4B; RELIABILITY CRITERIA VIOLATIONS

QUESTION:

Please reference EAK-4b, page 5, b0489 of the Khadr Testimony and completely explain how adding the proposed 500kV circuit remedies all Criteria Violations of b0489.

ANSWER:

Please see the direct testimony of Esam A.F. Khadr at page 9, lines 1-5. The addition of the proposed circuit addresses all 23 reliability criteria violations in Exhibit EAK 3a.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-32  
WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
INDEPENDENT VERIFICATION; RTEP

QUESTION:

Please reference page 21, line 5 of the Khadr Testimony and state whether there was any independent verification of the PJM and PSE&G studies.

ANSWER:

It is unclear what is meant by "PSE&G studies." PSE&G relied on the studies prepared by PJM Interconnection, L.L.C. ("PJM"). PJM is an independent Regional Transmission Organization ("RTO") that has been approved by the Federal Energy Regulatory Commission ("FERC") and operates the transmission assets owned by its member companies, including those assets owned by PSE&G. PJM is also responsible for planning the transmission system. Pursuant to the FERC order that established PJM as an RTO, PJM is required to act independently of any individual member of its organization. Thus, PJM independently identifies NERC reliability criteria violations and plans for the upgrades that will be needed to address them.

<http://www.pjm.com/about-pjm/who-we-are.aspx>



RESPONSE TO FREDON PARENTS AGAINST  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
JCP&L

**QUESTION:**

Please reference page 23, line 5 of the Khadr Testimony and explain more completely what is meant by “future connection of the Northern JCP&L 230kV system to the 500kV network”.

**ANSWER:**

See response to PALS-10.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-34  
WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
JCP&L

QUESTION:

Please reference page 23, line 5 of the Khadr Testimony and provide an appropriate drawing that depicts the “future connection of the Northern JCP&L 230kV system to the 500kV network”.

ANSWER:

PSE&G is not aware of any plans at this time to connect the 500kV network directly to JCP&L's 230kV system.

RESPONSE TO FREDON PARENTS AGAINST  
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REQUEST: PALS-35  
WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
EAK-6

QUESTION:

Please reference EAK-6 of the Khadr Testimony and provide an updated exhibit EAK-6 for each year of the 15 year planning period.

ANSWER:

PSE&G does not have such a document. Exhibit EAK-6 was created from existing interconnection queue applications as of December 31, 2008.

RESPONSE TO FREDON PARENTS AGAINST  
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REQUEST: PALS-36  
WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
LEAKAGE

QUESTION:

Please reference page 23, line 20 of the Khadr Testimony and explain the meaning of “leakage” in this context.

ANSWER:

N.J.S.A. 48:3-87(i) defines "leakage" as an increase in greenhouse gas emissions related to generation sources located outside of the State that are not subject to a state, interstate or regional greenhouse gas emissions cap or standard that applies to generation sources located within the State.

RESPONSE TO FREDON PARENTS AGAINST  
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REQUEST: PALS-37  
WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
RELIABILITY

QUESTION:

Please reference page 24, line 3 of the Khadr Testimony and explain more completely the impact and implications of the 'just approved additional 500kV line'.

ANSWER:

Please refer to the testimony of Esam A.F. Khadr at page 24, lines 7-13.

RESPONSE TO FREDON PARENTS AGAINST  
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WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
MAPS AND DRAWINGS

QUESTION:

Please reference page 24, line 3 of the Khadr Testimony and provide an appropriate drawing that depicts the interconnection of the 'just approved additional 500kV line' with the network.

ANSWER:

See page 8 of the PJM TEAC presentation linked below:

<http://www.pjm.com/Media/committees-groups/committees/teac/20090121/20090121-reliability-analysis-update.pdf>

RESPONSE TO FREDON PARENTS AGAINST  
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WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
RELIABILITY CRITERIA VIOLATIONS

QUESTION:

Please reference page 25, line 15 of the Khadr Testimony and state all 'reliability criteria violations' that would not be addressed by a new 230kV line between Stanton and Roseland.

ANSWER:

Please refer to the direct testimony of Paul F. McGlynn at page 24, lines 8-10 and the direct testimony of Steven R. Herling at page 32, lines 2-13.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-40  
WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
LOAD FORECAST

QUESTION:

Please reference page 17, line 3 of the Khadr Testimony and provide the new load forecast that was to be issued in early 2009.

ANSWER:

<http://www.pjm.com/documents/~media/documents/reports/2009-pjm-load-report.ashx>



RESPONSE TO FREDON PARENTS AGAINST  
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REQUEST: PALS-41  
WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
RTEP; RETOOL

QUESTION:

Please reference page 17, line 3 of the Khadr Testimony and provide the results of the 2009 re-tool.

ANSWER:

<http://www.pjm.com/Media/committees-groups/committees/teac/20090313/20090313-reliability-analysis-update.pdf>

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-42  
WITNESS(S): KHADR  
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SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
DEMAND RESPONSE

QUESTION:

Please reference page 28, line 13 of the Khadr Testimony and explain to what level demand response programs need to be effective for them to negate the need for the construction of the project.

ANSWER:

PJM and PSE&G have not performed analysis to determine the level of demand response required to negate the need for this line.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-43  
WITNESS(S): KHADR / HERLING  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
EMP; RTEP

**QUESTION:**

Please reference page 28, line 17 of the Khadr Testimony and explain more completely if any of the NJ EMP was included in the PJM simulation modeling.

**ANSWER:**

Please see the direct testimony of Steven R. Herling at page 42, lines 3 to 11.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-44  
WITNESS(S): KHADR  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
EMF

QUESTION:

Please reference page 31, line 14 of the Khadr Testimony and explain more completely all aspects that were not included in the EMF studies.

ANSWER:

Please see direct testimony of Esam A.F. Khadr at page 31, lines 15 to 17. All aspects were included in the EMF study.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-45  
WITNESS(S): KHADR  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
NETWORK CHANGES

QUESTION:

Please reference page 31, line 14 of the Khadr Testimony and itemize all future network changes that could be envisioned if the proposed Susquehanna – Roseland project is completed.

ANSWER:

PSE&G objects to this question as ambiguous. Notwithstanding, the construction of the Susquehanna-Roseland Project does not drive the need for future network changes.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-46  
WITNESS(S): KHADR  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
EMF

QUESTION:

Please reference page 31, line 14 of the Khadr Testimony and estimate the impact of all not included aspects on the EMF studies.

ANSWER:

Please see the response to PALS-44.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-47  
WITNESS(S): CROUCH  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
DESIGN AND CONSTRUCTION

QUESTION:

Please reference page 2, line 18 of the Testimony of John P. Ribardo (“Ribardo Testimony”) and confirm that the new 500kV circuit is the only change to the planned for the Susquehanna – Roseland project.

ANSWER:

PSE&G objects to this question as vague and ambiguous.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-48  
WITNESS(S): CROUCH  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
DESIGN AND CONSTRUCTION

QUESTION:

Please reference page 2, line 18 of the Ribardo Testimony and confirm that there are no changes planned to the existing 230kV circuit or completely detail any and all changes.

ANSWER:

PSE&G objects to this question as vague and ambiguous.



RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-49  
WITNESS(S): RIBARDO / BAILEY  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
EMF

QUESTION:

Please reference page 6, line 7 of the Ribardo Testimony and completely explain how PSE&G reached the conclusion that there are "...no health risks associated with EMF...".

ANSWER:

Please see the direct testimony of PSE&G witness William H. Bailey, Ph.D.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-50  
WITNESS(S): POLLOCK  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
ENVIRONMENTAL IMPACTS; WETLANDS

QUESTION:

Please reference page 3, line 11 of the Testimony of Robert Pollock (“Pollock Testimony”) and provide copies of all wetland and threatened and endangered species studies performed for maintenance and planning purposes of the Roseland-Bushkill right-of-way.

ANSWER:

Studies have been ongoing to assess the existence of and potential impacts on specific plant and animal species. Formal reports and field findings will be addressed within the NJDEP Division of Land Use Regulation approval process.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-51  
WITNESS(S): POLLOCK  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
ENVIRONMENTAL IMPACTS; WETLANDS

QUESTION:

Please reference page 3, line 13 of the Pollock Testimony and provide copies of all wetlands delineations and species specific investigations performed for the permitting and planning of “the Project”.

ANSWER:

The wetland delineations for the existing Roseland-Bushkill ROW have been delineated as shown on Exhibit RFC-3. Such delineations will be addressed within the NJDEP Division of Land Use Regulation approval process.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-52  
WITNESS(S): POLLOCK  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
ENVIRONMENTAL IMPACTS

QUESTION:

Please reference page 5, line 14 of the Pollock Testimony and confirm it is true and explain how it is not contradictory to state that "...clearing will be minimal" then to go on to say that this will result in "...no additional impacts to existing stream corridors".

ANSWER:

The discussion referenced within this section of testimony is within the subject of water crossings. The Susquehanna – Roseland transmission line will be located within an existing right-of-way which has been maintained on a routine basis. Long term ROW maintenance will continue in order to ensure safe and reliable electric service in accordance with State and federal laws and regulations governing vegetation management. Short term temporary impacts associated with the construction of the line will be mitigated in accordance with the applicable flood hazard area regulations.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES

REQUEST: PALS-53

WITNESS(S): POLLOCK

PAGE 1 OF 2

SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
ENVIRONMENTAL IMPACTS

QUESTION:

Please reference page 5, line 20 of the Pollock Testimony and describe all environmental impacts that are associated with “the Project”.

ANSWER:

As indicated in the direct pre-filed testimony of Robert T. Pollock, impacts from the project will either be temporary or permanent in nature and will be addressed within the NJDEP Division of Land Use Regulation approval process. Temporary impacts will be limited by utilizing protective measures such as matting or the use of low profile vehicles designed for distributing weight so as not to cause unnecessary soil compaction in wetland areas. Matting can be made of steel, timber or plastic. Silt fencing and other soil erosion and sediment control measures will be utilized in accordance with approved plans from the respective Soil Conservation District.

For certain critical species, such as bog turtles, pre-construction field surveys will be performed by US Fish and Wildlife certified bog turtle surveyors. In addition, construction monitoring will be conducted to reduce any potential for mobile species to enter an area during construction. In addition, time or seasonal restrictions may be implemented in order to minimize potential impacts to threatened or endangered species.

Permanent impacts within the existing easement will result from the area of coverage taken up by the structure locations in wetland or transition areas. The Project calls for structure replacement to take place within the existing ROW. Consequently, there will be essentially minimal net loss of wetlands or critical resources. In the isolated event that an additional structure must be placed in a critical area because of engineering constraints, the permanent impact will be isolated to the footprint of the structure base or foundation. Any permanent impacts will be mitigated for in accordance with the applicable laws and regulations of the governing entity.

Additional permanent impacts to forested areas, wetlands and other regulated features will result from the placement of the two required switching stations. PSE&G will comply with requirements under the NJ Highlands Regulations and Stormwater management rules at N.J.A.C. 7:8 wherever possible. During construction, super silt fencing and other soil erosion and sediment controls will be utilized as approved by the Morris County Soil Conservation District.

The S-R transmission line will be located within the existing, maintained 230kV right-of-way. Long term maintenance activities will be consistent with what is currently in practice and will not result in any additional impacts to resources which currently exist. As the project will be located within an existing, disturbed overhead transmission line right-of-way, it is my opinion that the project is being proposed in the most logical and reasonable location available.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES

REQUEST: PALS-53

WITNESS(S): POLLOCK

PAGE 2 OF 2

SUSQUEHANNA-ROSELAND

Temporary and permanent impacts will be detailed and quantified during the NJDEP Land Use approval process. Additional mitigative measures will be developed during the approval process as well.

The final locations of the access roads have recently been established. Off site temporary impacts associated with access roads are currently being quantified. The off ROW impact assessment will be completed when landowner access permission granted allowing PSE&G to delineation wetlands, stream corridors and other critical habitat.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-54  
WITNESS(S): POLLOCK  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
ENVIRONMENTAL IMPACTS

QUESTION:

Please reference page 6, line 13 of the Pollock Testimony and list and completely describe all impacts that would be “permanent in nature”.

ANSWER:

See response to PALS-53.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-55  
WITNESS(S): POLLOCK  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
ENVIRONMENTAL IMPACTS

QUESTION:

Please reference page 7, line 3 of the Pollock Testimony and explain your use of the phrase "it is my understanding."

ANSWER:

Mr. Pollock has provided testimony regarding environmental impacts. Richard F. Crouch and Robert Millies are PSE&G's witnesses associated with design and construction.



RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-56  
WITNESS(S): POLLOCK  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
ENVIRONMENTAL IMPACTS; RIGHT-OF-WAY

QUESTION:

Please reference page 7, line 3 of the Pollock Testimony and list any and all impacts that would occur outside of the existing Right-of-way.

ANSWER:

In the direct testimony of Robert Pollock on page 7, line 3, there is no reference to any impacts that would occur outside of the existing Right-of-way. For a discussion of environmental impacts, see responses to S-ENR-27, PALS-50, PALS-52 and PALS-53.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-57  
WITNESS(S): CROUCH  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
DESIGN AND CONSTRUCTION; MAINTENANCE

QUESTION:

Please reference page 7, line 22 of the Pollock Testimony and state whether existing maintenance activities include the use of helicopters.

ANSWER:

Yes, PSE&G's Construction and Maintenance department does utilize helicopters as and where appropriate to perform maintenance on overhead transmission lines.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-58  
WITNESS(S): CROUCH  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
DESIGN AND CONSTRUCTION; MAINTENANCE

QUESTION:

Please reference page 7, line 22 of the Pollock Testimony and state whether future maintenance activities would include the use of helicopters should the Susquehanna-Roseland Project be completed.

ANSWER:

Yes, future maintenance activities would include the use of helicopters as and where appropriate should the Susquehanna-Roseland Project be completed.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-59  
WITNESS(S): CROUCH  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
DESIGN AND CONSTRUCTION; EXISTING LINES AND TOWERS

QUESTION:

Please explain how the Susquehanna-Roseland Project would be constructed meaning: what happens to the existing lines / towers and when. When would the new towers/lines be installed.

ANSWER:

Please refer to the direct testimony of Richard F. Crouch, page 14, line 13 to page 15 line 8. Specific timing of deconstruction and construction activities have not been determined as of yet, however, the Project calls for an in-service date of June 1, 2012.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-60  
WITNESS(S): POLLOCK / CROUCH  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
ENVIRONMENTAL IMPACTS; VISUAL IMPACTS

QUESTION:

Please reference page 8, line 5 of the Pollock Testimony and list and completely describe all visual impacts that would result from the Susquehanna-Roseland Project.

ANSWER:

Please refer to Exhibit RFC-1 for a visual analysis of the proposed transmission structures.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-61  
WITNESS(S): CROUCH  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
DESIGN AND CONSTRUCTION

QUESTION:

Please reference page 8, line 5 of the Pollock Testimony and state how many actual wires are used in the existing 230kV circuit (including conductors and grounds/shields).

ANSWER:

The existing 230kV circuit consists of three phase conductors and two shield wires.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-62  
WITNESS(S): CROUCH  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
DESIGN AND CONSTRUCTION

QUESTION:

Please reference page 8, line 5 of the Pollock Testimony and describe the orientation / configuration of all wires used in the existing 230kV circuit (including conductors and grounds/shields).

ANSWER:

Please reference direct testimony of Richard F. Crouch, page 6, lines 7 to 10.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-63  
WITNESS(S): CROUCH  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
DESIGN AND CONSTRUCTION

QUESTION:

Please reference page 8, line 5 of the Pollock Testimony and state how many actual wires would be used in replacement 230kV circuit if the Susquehanna-Roseland Project were completed.

ANSWER:

Please reference the direct testimony of Richard F. Crouch, page 9, lines 18 to 21.



RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-64  
WITNESS(S): CROUCH  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
DESIGN AND CONSTRUCTION

QUESTION:

Please reference page 8, line 5 of the Pollock Testimony and describe the orientation / configuration of all wires used in the replacement 230kV circuit if the Susquehanna-Roseland Project were completed.

ANSWER:

Please reference the direct testimony of Richard F. Crouch, page 10, lines 8 to 11.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-65  
WITNESS(S): CROUCH  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
DESIGN AND CONSTRUCTION

QUESTION:

Please reference page 8, line 5 of the Pollock Testimony and state how many actual wires would be used in the proposed 500kV circuit if the Susquehanna-Roseland Project were completed.

ANSWER:

Please reference the direct testimony of Richard F. Crouch, page 10, line 15.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-66  
WITNESS(S): CROUCH  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
DESIGN AND CONSTRUCTION

QUESTION:

Please reference page 8, line 5 of the Pollock Testimony and describe the orientation / configuration of all wires used in the proposed 500kV circuit if the Susquehanna-Roseland Project were completed.

ANSWER:

Please reference the direct testimony of Richard F. Crouch , page 10, lines 7 to 15.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-67  
WITNESS(S): CROUCH  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
DESIGN AND CONSTRUCTION

QUESTION:

Please reference page 8, line 5 of the Pollock Testimony and state the total number of wires used in the existing 230kV circuit and the total number of wires that would be used if the Susquehanna-Roseland Project were completed.

ANSWER:

Please reference answer to PALS-61 and the direct testimony of Richard F. Crouch, page 9, lines 18 to 21.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-68  
WITNESS(S): CROUCH  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
VISUAL IMPACTS

QUESTION:

Please reference page 8, line 5 of the Pollock Testimony and completely describe any and all visual impacts that would result from the Susquehanna-Roseland Project considering but not limited to towers, wires, clearing, etc.

ANSWER:

See response to PALS-60.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-69  
WITNESS(S): POLLOCK  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
VISUAL IMPACTS

QUESTION:

Please reference page 8, line 5 of the Pollock Testimony and state whether PSE&G would also work with each and every affected entity to resolve any visual impacts resulting from the Susquehanna-Roseland Project where an entity is any affected party, town, organization, etc.

ANSWER:

As indicated in the direct testimony of Robert Pollock, PSE&G will work with agencies, including but not limited to the New Jersey State Historic Preservation Office, Appalachian Trail and the National Park Service to minimize potential impacts wherever possible.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-70  
WITNESS(S): GIBBS  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
PROPERTY RIGHTS

QUESTION:

Please reference page 3, line 16 of the Testimony of Robert L. Gibbs (“Gibbs Testimony”) and list any / all properties that PSE&G has purchased related to the proposed Susquehanna-Roseland Project.

ANSWER:

PSE&G has purchased the following property as part of this Project.

- 1) Twp of Jefferson,  
Block 320.04, Lot 2  
Block 320.04, Lot 1.07  
Block 320.05, Lot 1.01  
Block 320.05, Lot 4  
Jefferson, NJ
- 2) Twp of Fredon  
Block 1801, Lot 2.01  
Newton, NJ
- 3) Twp of Sparta/Hopatcong  
Block 15, Lots 11.01, 11.09 & 11.10  
Block 60001, Lot 2

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-71  
WITNESS(S): GIBBS  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
PROPERTY RIGHTS

QUESTION:

Please reference page 3, line 16 of the Gibbs Testimony and list all purchase details of any / all properties that PSE&G has purchased related to the proposed Susquehanna-Roseland Project. This is to include, at a minimum,: name of seller(s), location of property, date of purchase, purchase price, etc.

ANSWER:

- 1) Block 320.04, Lot 2  
Block 320.04, Lot 1.07  
Block 320.05, Lot 1.01  
Block 320.05, Lot 4  
Jefferson, NJ  
Closed: 10/6/08
- 2) Block 1801, Lot 2.01  
Newton, NJ (Twp of Fredon)  
Closed: 12/3/08
- 3) Twp of Sparta/Hopatcong  
Block 15, Lots 11.01, 11.09 & 11.10  
Block 60001, Lot 2  
Closed: 5/28/09



RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-72  
WITNESS(S): GIBBS  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
PROPERTY RIGHTS; APPRAISALS

QUESTION:

Please reference page 3, line 16 of the Gibbs Testimony and provide a copy of all real-estate appraisals that were performed in relation to any/all properties that PSE&G has purchased related to the proposed Susquehanna-Roseland Project.

ANSWER:

PSE&G objects to this question. The real estate appraisals for these purchases constitute confidential and proprietary information.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-73  
WITNESS(S): GIBBS  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
PROPERTY RIGHTS; EASEMENTS

**QUESTION:**

Please reference page 3, line 17 of the Gibbs Testimony and list any/all additional real estate rights associated with PSE&G easements that PSE&G needs to acquire for the Project.

**ANSWER:**

The chart below shows the locations where PSE&G needs additional rights to its existing easements and the reasons why PSE&G needs the additional rights.

<b>Parcel No.</b>	<b>Municipality</b>	<b>County</b>	<b>Towers</b>	<b>Lines</b>	<b>Voltage</b>	<b>Trees</b>
PPL-085	Fredon Township	Sussex	X			
PPL-085A	Fredon Township	Sussex	X			
PPL-135A	Andover Township	Sussex		X	X	X
PPL-142B	Andover Township	Sussex	X		X	
PPL-146	Andover Township	Sussex	X			
PPL-146A	Andover Township	Sussex	X			
PPL-147	Andover Township	Sussex	X			
PPL-231A	Jefferson Township	Morris	X	X	X	
PPL-237	Jefferson Township	Morris		X		
PPL-238	Jefferson Township	Morris		X		
PPL-257	Rockaway Township	Morris				X
PPL-258	Rockaway Township	Morris				X
PPL-264	Rockaway Township	Morris	X			
PPL-265	Rockaway Township	Morris	X			
PPL-266	Rockaway Township	Morris	X			
PPL-291	Montville Township	Morris	X	X		
PPL-311	Montville Township	Morris	X			
PPL-312	Montville Township	Morris	X			
PPL-329	Montville Township	Morris	X			
PPL-330	Montville Township	Morris	X			
PPL-334	Montville Township	Morris	X	X	X	

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-74  
WITNESS(S): CROUCH  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
DESIGN AND CONSTRUCTION

QUESTION:

Please reference page 3, line 19 of the Gibbs Testimony and completely describe what is meant by “access points” and “laydown areas”.

ANSWER:

“Access Points” are areas where PSE&G will need to gain access to the right-of-way. “Laydown Areas” are ground surfaces that will be used by PSE&G to temporarily store construction equipment and store and assemble towers and lines.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-75  
WITNESS(S): CROUCH  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
DESIGN AND CONSTRUCTION; PROPERTY RIGHTS

QUESTION:

Please reference page 3, line 19 of the Gibbs Testimony and list any/all access points and laydown areas that PSE&G needs to acquire for the Project.

ANSWER:

Please refer to Exhibit RFC-2 for location of preliminary access road and laydown areas. Final locations of access roads and laydown areas are still being finalized.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-76  
WITNESS(S): GIBBS  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
EASEMENTS; PROPERTY RIGHTS

QUESTION:

Please reference page 4, line 4 of the Gibbs Testimony and list and describe each and every additional easement right that PSE&G has determined it would need in relation to the proposed Susquehanna-Roseland Project.

ANSWER:

Please see the response to PALS-73.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-77  
WITNESS(S): GIBBS  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
EASEMENTS

QUESTION:

Please reference page 4, line 8 of the Gibbs Testimony and identify the PSE&G easement that “limits the number of circuits on the ROW to one circuit”.

ANSWER:

Please see the response to PALS-73.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-78  
WITNESS(S): GIBBS  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
EASEMENTS; RIGHT OF WAY

QUESTION:

Please reference page 4, line 8 of the Gibbs Testimony and identify any and all PSE&G easements that limit the number of circuits on the ROW.

ANSWER:

Please see the response to PALS-73.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-79  
WITNESS(S): GIBBS  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
EASEMENTS; RIGHT OF WAY

QUESTION:

Please reference page 4, line 8 of the Gibbs Testimony and identify any and all PSE&G easements that limit the number of towers on the ROW.

ANSWER:

Please see the response to PALS-73.



RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-80  
WITNESS(S): GIBBS  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
PROPERTY RIGHTS; SURVEYS

QUESTION:

Please reference page 4, line 13 of the Gibbs Testimony and provide a copy of each survey that PSE&G has prepared for each of the properties where PSE&G needs to acquire additional rights.

ANSWER:

PSE&G objects to this question as irrelevant, unduly burdensome, unlikely to lead to the discovery of admissible evidence and improperly seeking the disclosure of confidential and/or proprietary information.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-81  
WITNESS(S): GIBBS  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
PROPERTY RIGHTS; EMINENT DOMAIN

QUESTION:

Please reference page 4, line 22 of the Gibbs Testimony and more completely describe PSE&G's plans to use N.J.S.A. 48:3-17.6 and 48.3-17.7 in relation to the proposed Susquehanna-Roseland Project including but not limited to easements, access points, and access roads.

ANSWER:

Should PSE&G be unable to successfully negotiate with property owners where PSE&G needs additional rights or access roads, PSE&G will file a petition with the Board of Public Utilities seeking the right to use eminent domain to acquire those rights.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-82  
WITNESS(S): GIBBS  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
PROPERTY RIGHTS; EMINENT DOMAIN

QUESTION:

Please reference page 4, line 22 of the Gibbs Testimony and identify any and all cases in which PSE&G has already used or is in the process of using or plans to use N.J.S.A. 48:3-17.6 and 48.3-17.7 in relation to the proposed Susquehanna-Roseland Project, including but not limited to easements, access points, and access roads.

ANSWER:

There are currently no cases in which PSE&G has already used or is in the process of using or plans to request the use of eminent domain for this Project.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-83  
WITNESS(S): CROUCH  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
EXPERIENCE; UNDERGROUNDING

QUESTION:

Please reference page 2, line 11 of the Testimony of Richard F. Crouch (“Crouch Testimony”) and identify all projects you have worked on and are aware of that utilized underground transmission assets.

ANSWER:

Please refer to S-ENR-115. Additionally, for PSE&G projects, please see below:

Circuit #W-1323. Relocation of +/- xxxx feet of 138kV gas filled pipe-type cable at Route 21 – Newark

Circuit #R-2270 and Y-2225. Relocation of +/- xxxx feet of 230kV fluid filled pipe type cable – Hoboken

Circuit #I-1335. Installation of a stop joint on a 138kV cable – Newark

Circuit #H-1308. Relocation of +/- xxxx feet of 138kV fluid filled pipe type cable – Newark

Circuit #R-2270 and Y-2225. Relocation of +/- xxxx feet of 230kV fluid filled pipe type cable – 49th Street Tunnel

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-84  
WITNESS(S): CROUCH  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
EXPERIENCE

QUESTION:

Please reference page 2, line 11 of the Crouch Testimony and, for each of the above identified projects, please briefly summarize each project in terms of voltage of the circuit and length of the circuit.

ANSWER:

Please see response to PALS-83.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-85  
WITNESS(S): CROUCH  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
DESIGN AND CONSTRUCTION

QUESTION:

Please reference page 3, line 3 of the Crouch Testimony and more completely describe what is meant by 'the reconfiguration' of the existing 230kV circuit.

ANSWER:

Existing 230kV conductors are arranged in a horizontal configuration and the proposed configuration is vertical.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-86  
WITNESS(S): CROUCH  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
DESIGN AND CONSTRUCTION

QUESTION:

Please reference page 3, line 5 of the Crouch Testimony and more completely describe the timeline of the deconstruction and reconstruction.

ANSWER:

Please see response to STL-D-Millies-1 and PALS-59.

RESPONSE TO FREDON PARENTS AGAINST  
THE LINES  
REQUEST: PALS-87  
WITNESS(S): CROUCH  
PAGE 1 OF 1  
SUSQUEHANNA-ROSELAND

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
DESIGN AND CONSTRUCTION; DECONSTRUCTING; RELIABILITY

QUESTION:

Please reference page 3, line 5 of the Crouch Testimony and completely describe any and all impacts to the grid due to having deconstructed the existing 230kV circuit and how such impacts are planned to be dealt with.

ANSWER:

Sections of the line will need to be de-energized during deconstruction and construction. Outages will be coordinated with PJM to ensure reliability of the transmission grid.