

**BERGER LAW FIRM, P.C.**

ATTORNEY AT LAW

-----

2104 MARKET STREET  
CAMP HILL, PA 17011

TELEPHONE: (717) 920-8900

FACSIMILE: (717) 920-8901

EMAIL: [tberger@bergerlawfirm.net](mailto:tberger@bergerlawfirm.net)

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October 7, 2009

James J. McNulty  
Pennsylvania Public Utility Commission  
Commonwealth Keystone Building  
400 North Street  
Harrisburg, PA 17120

**Re: Application of PPL Electric Utilities Corporation Filed Pursuant to 52 Pa Code, Chapter 57, Subchapter G, for Approval of the Siting and Construction of the Pennsylvania Portion of the Proposed Susquehanna-Roseland 5002 kV Transmission line in Portions of Lackawanna, Luzerne, Monroe, Pike and Wayne Counties, Pennsylvania**

**Docket Nos: A-2009-2082652, A-2009-2082832,  
A-2009-2088297, A-2009-2088337,  
A-2009-2088327, A-2009-2088340,  
A-2009-2088312, A-2009-2088360**

Dear Secretary McNulty:

On this date the Energy Conservation Council of Pennsylvania ("ECC"), is electronically filing its Main Brief in the above-referenced matter. The brief and cover letter are contemporaneously being served on all parties per the attached certificate of service, and the brief is being posted on the website for this matter, per Judge Colwell's Briefing Order.

Sincerely,



Edmund "Tad" Berger

Enclosure  
cc: Certificate of Service

Luzerne, Monroe, Pike and Wayne Counties, Pennsylvania Is Necessary or Proper For The Service, Accommodation, Convenience Or Safety Of The Public:	:	:
	:	:
HaRa Corporation in Middle	:	A-2009-2088337
	:	:
Richard Coccodrilli, Jr., Jeffrey J. Coccodrilli, Ryan T. Coccodrilli, and Joseph Williams	:	A-2009-2088327
	:	:
D&L Realty Company	:	A-2009-2088340
	:	:
Rudolph Saporito and Maria Saporito	:	A-2009-2088312
	:	:
David Murphy	:	A-2009-2088360

**THE ENERGY CONSERVATION COUNSEL OF PENNSYLVANIA'S  
MAIN BRIEF**

Willard R. Burns  
Burns Law Firm, LLC  
390 Oak Spring Road  
Marianna, PA 15345  
Phone: (412) 693-3035  
Fax: (412)291-1498  
wburns@burnslegal.net

Edmund "Tad" Berger  
Berger Law Firm, P.C.  
2104 Market Street  
Camp Hill, PA 17011  
Phone: (717) 920-8900  
Fax: (717) 920-8901  
publicutilitylaw@bergerlawfirm.net

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The Energy Conservation Council of Pennsylvania ("Energy Conservation Council" or "ECC") hereby files its Main Brief in the above-captioned consolidated proceedings in accordance with Judge Colwell's September 14, 2009 Order and the requirements of 52 Pa. Code §§ 5.501 and 5.502.

## **I. INTRODUCTION**

PPL Electric Utilities Corporation ("PPL") has failed to meet its burden of proving that its proposed Susquehanna-Roseland 500 kV facilities are necessary and proper for the accommodation, convenience and safety of the public, pursuant to the Public Utility Code and the Commission's Regulations. Thus, PPL's application must be denied.

## **II. STATEMENT OF THE CASE**

The ECC adopts the Pennsylvania Consumer Advocate's ("OCA") Statement of the case.

## **III. SUMMARY OF ARGUMENT**

PPL has the burden of proof in this matter, but cannot meet its burden. The evidentiary record does not support a conclusion that the proposed Susquehanna-Roseland 500 kV facilities are necessary or proper for the accommodation, convenience or safety of the public. The evidentiary record also does not support a conclusion (1) that the proposed facilities are needed, (2) that they will not create an unreasonable risk of danger to the health and safety of the public, (3) that it is in compliance with applicable statutes and regulations providing for the protection of the natural resources of this Commonwealth, or (4) that it will have minimum adverse environmental impact considering the electric power needs of the public, the state of available technology and the available alternatives, or that the proposed facilities are "reasonably responsive to the need that exists". .

The biggest problem with PPL's application is the fact that the computer modeling assumptions that caused PJM to approve the Susquehanna to Roseland line as "needed" in 2007 have changed significantly, and the possible future reliability issues revealed in the modeling since 2007 have greatly decreased in severity. Despite significant and material changes to the potential future reliability issues (as noted in PJM's latest computer modeling study -- the March 2009 "retool"), no one has analyzed any alternative possible fixes other than the Susquehanna - Roseland line.

That fact bears repeating - neither PJM nor PPL have evaluated any other fixes to deal with the currently-projected future issues. Thus, neither PJM nor PPL can prove that the proposed facilities are "needed" or are "reasonably responsive to the need that exists" because they just don't know! Is there a less expensive, less invasive, and less environmentally destructive fix to the potential future issues? Without knowing the answer to this question, the Commission cannot approve PPL's application.

In addition, the latest computer modeling study (the March 2009 "retool") does not reflect reality. PPL's application should be denied because the March 2009 studies: (1) do not include an updated load forecast that reflects the current economic recession; (2) ignores significant quantities of Demand Response and Energy Efficiency resources that cleared in the May 2009 RPM Auction; and (3) completely ignores Pennsylvania's Act 129 and New Jersey's Energy Master Plan peak load reduction initiatives which require the reduction of peak electrical usage.

Finally, PPL chose the currently-proposed line route well before its consultant completed its siting analysis and report. Thus, PPL did not evaluate and consider "alternative

routes” for the proposed line and, as a result, did not comply with Pennsylvania’s siting regulations.

For each of these reasons, PPL’s application must be denied.

#### IV. ARGUMENT

##### A. LEGAL STANDARDS

###### 1. Burden of Proof

PPL has the burden of proof because it seeks an order in a Commission proceeding, 66 Pa.C.S. §332; *Application of Trans-Allegheny Interstate Line Co. (“TrAILCo”)* Docket Nos. A-110172 et. al, slip op. (Pa. P.U.C. December 12, 2008) at 6-7. The party with the burden of proof – in this case PPL - has a duty to establish the material facts by a preponderance of the evidence. *Se-Ling Hosiery, Inc. v. Margulies*, 364 Pa. 45, 70 A.2d 854 (1950). The “preponderance of the evidence” means that a party has presented evidence which is more convincing than the evidence presented by the other party. *Id.*, at 48-49, 70 A.2d at 856.

PPL has also requested to exercise the power of eminent domain to take, occupy and condemn property under Section 1511 of the Business Corporations Code. 15 Pa.C.S. §1511(a). Section 1511 places the burden of proof on the party seeking to exercise the power of eminent domain - that the service to be furnished by the corporation through the exercise of eminent domain is necessary or proper for the service, accommodation, convenience or safety of the public. 15 Pa.C.S. §1511(c). Thus, PPL bears this burden of proof, by a preponderance of the evidence, regarding its request to exercise the power of eminent domain.

###### 2. Legal Standards Applicable to High Voltage Transmission Lines

Thirty years ago, the Commission established regulations to ensure that high voltage transmission lines were not approved until the applicant provided specific detailed information, public and evidentiary hearings were held, and the applicant proved, by a

preponderance of the evidence, everything that the regulations required. 52 Pa. Code § 57.71, *et seq.*<sup>1</sup> At that time, the Commission noted the inadequacy of existing procedures, noting the following limitations in particular:

First, there is no review at all if the transmission line is entirely within the service territory of the utility constructing the line and all rights-of-way are purchased. Second, even when there is review, consideration of safety and environmental impact have been limited in scope to the property to be condemned or to the service territory to be traversed. Finally, review occurs too late. In many cases, the application for certification is not filed until a final route has been selected, most of the needed rights-for-way have been purchased, and some construction begun.

*Re Proposed Electric Regulation*, 49 Pa. P.U.C. 709, 710 (1976).

The clear import of the implementation of the transmission line regulations was to bring a scope of review to the review of transmission line siting applications that had not previously been applied. In setting forth the regulations, the Commission was cognizant, in particular, of the environmental impact of transmission lines and the extraordinary power of eminent domain wielded by utilities. In promulgating the regulations, the Commission stated:

It is essential in the siting, construction, and maintenance of overhead electric transmission facilities to minimize *any* adverse effect upon the environment and upon the quality of human life in the area in which new facilities will be located, and to minimize any potential hazards to public health and safety.

*Re Proposed Electric Regulation*, 49 Pa. P.U.C. 709, 710 (1976) (emphasis added). In this respect, the Commission pointed to Article I, Section 27 of the Constitution of Pennsylvania and Pennsylvania appellate court decisions requiring it to “ensure the protection of the environment whenever the issue of damage to the environment is raised.” *Id.* at 712. This responsibility, the

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<sup>1</sup> It is well-established that the Applicant carries the burden of proof in an Application proceeding and must establish the evidence by a preponderance of the substantial and legally credible evidence. *Samuel L. Lansberry, Inc. v. Pennsylvania Pub. Util. Comm'n*, 578 A.2d 600 (Pa. Cmwlth. 1990).

Commission stated, "is met when the Commission determines that *all* applicable statutes and regulations relevant to the protection of the environment have been complied with, that a reasonable effort has been made to reduce the impact on the environment to a minimum, and that the environmental harm is clearly outweighed by the benefits to be derived from the facilities to be constructed." *Id.* (*emphasis added*)

Article I, § 27 of the Pennsylvania Constitution provides that:

The people have a right to clean air, pure water and to the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people.

This constitutional provision places "an affirmative duty" on the Commonwealth to act as a trustee, preserving and promoting the environmental and cultural values fundamental to the people of the Commonwealth. *Cmwlth. of Pennsylvania v. Nat'l Gettysburg Battlefield Tower, Inc.*, 8 Pa. Cmwlth. 231, 243, 302 A.2d 886, 892 (1973).

"[O]nce the issue [of Article I, Section 27], is raised, the burden upon the applicant is intensified - and it *must* show that it has met the three-pronged test enunciated in *Payne v. Kassab*, 11 Pa. Cmwlth. 14, 29, 312 A.2d 86, 94 (Pa. Cmwlth. 1973), *aff'd* 323 A.2d 405 (Pa. 1974). The three-pronged test requires the Commission to find 1) compliance with all applicable statutes and regulations relevant to the protection of the Commonwealth's public natural resources, 2) determine that the utility has demonstrated a reasonable effort to reduce the environmental incursion to a minimum, and 3) balance the environmental harm against the benefits of proceeding with the transmission line, **considering available alternative technologies**, siting and other factors. *Re Proposed Electric Regulation*, 49 Pa. P.U.C. at 712 (*emphasis supplied*); *Re West Penn Power Co.*, 54 Pa. P.U.C. 319, 328 (1980).

The siting regulations incorporate Article 1, § 27 into them. *Re Proposed Electric Regulation*, 49 Pa. P.U.C. at 712. (“[T]he review required by Article I, Section 27 is being incorporated into our siting regulation.”).

The final regulations did indeed incorporate these standards, and specifically stating that the Commission would “not grant the application *unless* it finds as to the proposed HV line:

- (1) That there is a need for it.
- (2) That it will not create an unreasonable risk of danger to the health and safety of the public.
- (3) That it is in compliance with applicable statutes and regulations providing for the protection of the natural resources of this Commonwealth.
- (4) That it will have minimum adverse environmental impact, considering the electric power needs of the public, the state of available technology and the available alternatives.”

52 Pa. Code §57.76(a).

In addition, to keep the environmental incursion to a minimum, the proposed facilities must be reasonably responsive to the need that exists. *Re Pennsylvania Power & Light Co.*, 50 Pa. P.U.C. 480, 484 (1977); *Re West Penn Power Co.*, 54 Pa. P.U.C. 319, 320-327 (1980) (emphasis supplied).

In the recent TrAIL proceeding, the Commission, in its Order, recognized the importance of examining issues such as the potential costs of green house emissions, DSM and energy efficiency alternatives and whether the proposal was built to facilitate west-to-east transfers of generation.” *Id.* at 29-30.

It is also important for this Commission to determine if the requested exercise of the powers of eminent domain by a public utility is necessary or proper for the service, accommodation, convenience or safety of the public. *PP&L v. Pa. PUC*, 696 A.2d 248, 250 (1997) . In the 1997 *PP&L* case, the Commonwealth Court reversed the Commission because the PUC erroneously required PP&L to demonstrate an “engineering need” – which is not specifically defined or mentioned in the Commission’s regulations - for the proposed high voltage facilities. *Id.* Thus, proving that there is an engineering “need” alone is not sufficient. Instead, the Commission must determine whether the line is necessary based upon all the factors identified in 52 Pa. Code §57.76(a). *Id.*

With respect to choice of the line route, the Commission requires an analysis of the following elements for each HV line: 1) a general description of each alternative route, 2) a description of the methodology for developing the alternative routes, 3) a comparison of the relative merits of each route, and 4) a statement of the reasons underlying the selection of the preferred route. *See* 52 Pa. Code § 57.72(c)(10).

In addition, under Section 57.75, PPL must show the: (1) present and future necessity of the proposed line; (2) safety of the line and (3) “impact and the efforts which have been and will be made to minimize the impact, if any” on land use, soil sedimentation, plant and wildlife habitats, terrain, hydrology, landscape, archaeological areas, geologic areas, historic areas, scenic areas, wilderness areas and scenic rivers. 52 Pa. Code §§57.75(1)-(3).

**B. NEED**

**1. Need for the Proposed Transmission Line**

**a. Overview of PJM’s Regional Transmission Expansion Plan, Assumptions, and Computer Modeling**

Each year, PJM evaluates - through complex computer modeling tests or "load flow studies" - *potential* issues that could *possibly* arise in the future. PJM calls its annual evaluation process the Regional Transmission Expansion Plan or "RTEP".

PJM claims that, in the RTEP process, it attempts to determine if any reliability issues may exist in the future regarding any "applicable reliability criteria". *See, e.g.*, PPL St. 8 (McGlynn) at 5. According to PJM, "applicable reliability criteria" includes the PJM deliverability criteria, regional reliability organization criteria, and the NERC Reliability Standards." *Id.*

It is important to note that the different computer modeling tests used by PJM in its RTEP process, such as the generator deliverability test and the load deliverability test (which PJM relies upon to establish a "need" for the Susquehanna - Roseland line), are based on numerous assumptions and predictions about potential projected future conditions:

These modeling tests "require PJM to make a number of *assumptions* about the future state of the system." PPL St. 8 (McGlynn) at 4 (emphasis supplied).

"All reliability criteria testing procedures employed in the development of the RTEP include detailed *assumptions* regarding load levels, transfer levels and generation patterns." PPL St. 7 at 21 (PJM's Steven Herling)(emphasis supplied).

"For example, PJM must apply initial assumptions regarding load forecasts, the development or retirement of generation, demand response resources, and electricity transfer levels between portions of the grid". PPL St. 8 at 4.

One of the key assumptions behind PJM's computer modeling is the load forecast, which attempts to predict *peak electrical demand* in the future. In fact, "[c]onsumer demand in the Eastern Mid-Atlantic area is the main factor causing the electrical need for these facilities..." PPL St. 8 (McGlynn) at 22.

Because the modeling tests are *simulations*, based on numerous assumptions about the future, the “violations” or “contingencies” referred to by PJM and PPL in its testimony are merely potential violations of planning criteria based on *projections* of the future. PJM’s planning tests are different from the way PJM actually operates the system. In fact, the way the testing is done for planning purposes is completely separate and distinct from the way the grid is actually operated in real time, as PPL witness Herling described during cross examination:

Q. And during operations, you will essentially maximize that flow because it allows cheaper generation to get to the demand, correct?

A. Correct.

Q. And that's what you refer to as security constrained economic dispatch. Maximize the use of cheapest generation unless it causes a reliability issue during operations, correct?

A. That's correct.

Q. All right. And you don't use that though in your planning test, is that right?

A. That is also correct.

Q. The planning tests are different from the way you operate the system in real-time and real life, correct?

A. Right.

Tr. at 1425-1426.

The alleged “violations” or “contingencies” do *not* represent current conditions, or actual events. This is clearly evident because neither PJM nor PPL are asking this Commission to approve the Susquehanna - Roseland line because of actual events that have occurred, or *current* problems that require fixing. Instead, PPL and PJM rely entirely on its computer-simulated modeling of future conditions to justify the alleged need for the Susquehanna - Roseland line, at some point in the future.

As discussed in greater detail below, PJM’s modeling is only as good – or bad - as the assumptions underlying its tests.

b. PJM's 2007 Regional Transmission Expansion Plan

In the 2006 RTEP process, PJM ran its modeling tests – looking out 15 years (i.e., until 2021) – and approved *one* 500 kV line (the TrAIL line). Tr. 1378. The following year's RTEP identified the “need” for the Susquehanna - Roseland line. *Id.* According to PJM's Paul McGlynn, “[t]he need for the Susquehanna - Roseland Project was first identified as part of the 2007 RTEP”<sup>2</sup>. In fact, in the 2007 RTEP, still looking out 15 years, PJM approved *three* additional 500 kV or larger lines, including the 101 mile long Susquehanna - Roseland line. Tr. 1378-9.

In the 2007 RTEP, PJM used its “load deliverability” and “generator deliverability” modeling tests to simulate whether *projected* conditions could possibly result in potential reliability issues in the future. *See, e.g.*, McGlynn Statement 8 at 5.

In its 2007 RTEP report, PJM indicated that the “Reliability Criteria Violations Driving Need for the Susquehanna-Roseland Line” were listed in table 3.1. *See* 2007 RTEP report at table 3.1 and page 58 (ECC Cross Ex. 14). Table 3.1 was labeled “Reliability Criteria Violations Driving Need for the Susquehanna-Roseland Line.” *Id.* In addition, the text of the 2007 RTEP report stated: “2007 RTEP analysis has revealed that multiple lines will exceed their conductor rating as early as 2013. TABLE 3.1 shows the transmission line overloads and the year each is expected to exceed its conductor rating.” *Id.* at p. 58.

However, the 2007 RTEP report was wrong. Contrary to PJM's statements in the 2007 RTEP, table 3.1 did not list the “Reliability Criteria Violations Driving Need for the Susquehanna-Roseland Line.” Tr. 1438-9 and ECC Cross Ex. 14. Instead, table 3.1 actually

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<sup>2</sup> PPL Statement 8 at 22. *See also* ECC Cross Ex. 14 (Section 3.2 of PJM's 2007 RTEP report, describing the “need” for the Susquehanna - Roseland line).

lists issues identified in the 2006 RTEP analysis - and in 2006 PJM did not determine that there was a need for the Susquehanna -- Roseland line, and did not approve the Susquehanna-Roseland line. See Tr. 1378-9 and 1438-9.

PJM or PPL will likely dismiss this "typo" as somehow unimportant. But it certainly begs the questions -- how thorough is PJM's RTEP process? How well vetted are the conclusions and alleged justifications for the lines approved in the RTEP<sup>3</sup>?

So what potential future issues were *actually* driving the alleged need for the Susquehanna to Roseland line in 2007? PJM's Steven Herling testified that the potential reliability issues driving the need for the Susquehanna - Roseland line in 2007, and which were to be resolved by the Susquehanna - Roseland line, are listed in table 3.2 of the 2007 RTEP report. Tr. at 1439. Table 3.2 is entitled "Overload Reductions in Northern New Jersey and Eastern Pennsylvania". ECC Cross Ex. 14 at p. 60. According to PJM's Steven Herling, table 3.2 shows how the potential future reliability issues identified in 2007 (mostly in northern New Jersey) would be resolved by the Susquehanna - Roseland line. Tr. at 1439. See also ECC Cross Ex. 14 at 60.

c. Alternatives considered in 2007 RTEP

After running the computer modeling tests in 2007, and discovering potential issues in the future (see table 3.2 in ECC Cross Ex. 14), PJM did not propose any solutions to the potential future issues. Instead, PJM informed its members that its load and deliverability

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<sup>3</sup> Perhaps it is also significant that PSE&G, the company "tasked" with building the portions of the Susquehanna - Roseland line to be located in New Jersey, criticizes PJM's 2007 RTEP modeling and "reliability transmission planning" that resulted in PJM's conclusion that the Susquehanna - Roseland line was "needed". See ECC Cross Ex. 16 (June 8, 2007 letter at pp. 3-4). In addition, PJM's witnesses did not even know which test was used to come up with the "Category C5" issues identified on Ex. PFM-3 until prompted by counsel. See Tr. at 1569-70. Despite the fact that PJM claimed that the generator delivery test was used to determine the potential C5 issues (see PFM 3), it was, in fact, another test that was used -- the "common mode outage" test. See Tr. at 1569-70; PJM manual 14b version 12 at page 57 (ECC Cross Ex. 25 at p. 57).

modeling tests had identified potential future reliability issues that required *something* to be done. PJM then asked its members to come up with potential solutions: “When PJM determines there are reliability violations, the Transmission Owners are consulted to validate the violation and to suggest recommended upgrades to relieve them.” PPL St. 7 (Herling) at 18. “We typically start by identifying where there are violations of criteria, and we review the violations only ...[t]he members are then requested to provide input to the extent that they may have ideas for possible solutions.” Tr. at 1345 (Herling).

With respect to the potential future reliability issues relating to the “need” for the Susquehanna - Roseland line (mostly in northern New Jersey), only PPL and PSE&G came up with potential solutions:

Q. Who came up with the alternatives that PJM looked at to the Susquehanna-Roseland line in 2007?

A. The side of the line in PPL was suggested by one of the managers of PPL... PSE&G provided alternatives on the New Jersey side.

Tr. at 1386 (Herling).

Q. And did PPL or PSE&G suggest any non-transmission alternatives to the Susquehanna-Roseland line?

A. No. Typically, the non-transmission solutions come after the markets through either the interconnection process or RPM.

Tr. at 1388. In fact, during the 2007 RTEP, the only solutions that PJM considered were transmission solutions.

“The RTEP will direct PJM’s transmission owning members to address such [future system] needs through specific **transmission solutions**”, PPL St. 7 (Herling) at 10 (emphasis supplied).

PJM applies reliability criteria to evaluate transmission system conditions and then develops the **transmission solutions** needed to ensure compliance with NERC Reliability Standards. PPL St. 7 at 14 (emphasis supplied).

During the 2007 RTEP “[t]ransmission options were considered”, PPL St. 7 at 26.

Before choosing the Susquehanna - Roseland line as the “preferred solution” in 2007, PJM evaluated the two other alternatives that were suggested by PPL and PSE&G:

In addition to the Susquehanna - Roseland solution that was selected, consideration was also given to a new 500 kV line from a new substation called Bossards in eastern Pennsylvania to Jefferson to Roseland and a new 230 kV line from Stanton substation in Pennsylvania to Roseland.

PPL St. 8 (McGlynn) at 24. *See also* 2007 RTEP report at 60 (ECC Cross Ex. 14)(“PJM considered various transmission alternatives to the Susquehanna - Roseland line. One main alternative considered was a circuit from Bossards through Jefferson to Roseland...”).

Thus, PJM examined two transmission alternatives to the Susquehanna - Roseland line during the 2007 RTEP process. **But no alternatives to the Susquehanna - Roseland line were considered after the 2007 RTEP:**

During the 2008 and 9 retools for Susquehanna-Roseland, no new proposals were made, no alternatives were suggested. And neither PJM nor PPL nor PSE&G had any other ideas as to lines that would better mitigate the violations that we had. So, no, at that point, there was no additional analysis of alternatives.

Tr. at 1385 (testimony of PJM’s Steven Herling).

As discussed below, the fact that neither PJM nor PPL considered *any* alternatives to the Susquehanna - Roseland line after 2007 requires the denial of PPL’s application. No one has evaluated whether a less intrusive or less costly fix – or a fix confined to NJ where all or most of the potential future issues are now predicted to occur – could solve the currently-identified potential issues.

In fact, as discussed below, it looks as if there may be a New Jersey based solution to the alleged issues which has not been considered. Either that or decisions by PJM to

ship power from New Jersey into New York are creating an artificial "load pocket" in New Jersey.

It appears from the record that there is already a surplus of generation in the northern New Jersey area. During cross examination Mr. Herling was asked about a merchant transmission project, as follows:

Q. And there's a description in the next bullet item about a merchant transmission project delivering capacity and energy from New Jersey and New York City. Do you see that?

A. Yes.

Q. And what product is that?

A. That would be identified in our queue as project 066. That is a project from Bergen, New Jersey to West 49th street in New York City.

Q. Does it have a name other than 066?

A. That is the Hudson Transmission Partners Project.

Tr. at 1369.

Q. Do you know what prompted them to want to sell their power to New York City instead of North Jersey?

A. Hudson Transmission Partners doesn't have any generation. They are simply providing a conduit from PJM to New York, based on an RFP that was issued by the New York Power Authority.

...

Q. How much power are we talking about?

A. My recollection is that the total project capability is 600 or 660 megawatts. I don't recall.

Tr. at 1370-1371. The record in this case is clear that power is expected to flow from the west (PA) to the east (NJ), specifically the load pocket in the area of Roseland. The exchange above, however, indicates that a large amount of generation is planning to leave the New Jersey area for New York.

Q. And the Bergen substation, that's fairly close to the proposed Roseland substation; correct?

A. It's relatively close. I don't know the distance between the two.

Tr. at 1416-1417. Thus, it appears that a potential alternative to the Susquehanna - Roseland line, that has not been evaluated by PJM or PPL, could be to build a short line from Bergen, NJ into the "load pocket" near Roseland. *Id.* Perhaps a better solution would be to deny the request to ship power out of northern New Jersey into the lucrative New York electrical market, thus preventing a potential "reliability issue" from arising. *Id.*

Most important for this proceeding, however, is the fact that, despite material changes to predicted potential future issues since 2007-- the issues are less severe than predicted even a year ago - no one has determined whether a cheaper or less intrusive fix exists for the potential future issues. Thus, PPL's application must be denied.

d. 2008 RTEP

PPL's application and testimony essentially ignores the specific issues identified in the 2007 RTEP that initially resulted in PJM's approval of the Susquehanna - Roseland line. Instead, PPL's application initially relied on the 2008 RTEP evaluation - claiming that the "23 issues" identified on PFM-1 (from 2008) require the building of the Susquehanna - Roseland line. *See* PPL St. 8 (McGlynn) at 13-15, 19-20, 23-25, and exhibit PFM-1.

PJM ignores the fact that the 2008 RTEP studies identified different potential reliability issues than the 2007 RTEP. Compare Table 3.2 from the 2007 RTEP (ECC Cross Ex. 14 at 60) with PPL Exhibit PFM-1 (which shows the 2008 RTEP issues "driving the need" for the Susquehanna - Roseland line). *See also* Charts 1 and 2 below.

And the most recent studies from the March 2009 "retool" identified materially different issues from the 2007 RTEP *and* from the 2008 RTEP. In fact, now PJM and PPL are *not relying* on PJM's 2007 or 2008 RTEP analysis for the Susquehanna - Roseland line. Instead, PJM claims that the Susquehanna to Roseland line is now needed *based on its most recent*

*modelling evaluations. See McGlynn Statement 8-R at 7. PJM's Paul McGlynn testified that the test results from the most recent tests – the March 2009 retool - “support the need for the Susquehanna-Roseland project”. Statement 8-R at 7. The results from the March 2009 retool are summarized in McGlynn’s exhibits PFM-2 and PFM-3.*

On cross examination, Mr. McGlynn confirmed that PJM is asking this commission to approve the Susquehanna-Roseland line *based upon the most recent studies that PJM has performed* – the March 2009 retool - which are described in Mr. McGlynn’s rebuttal testimony, including exhibits PFM-2 and 3. Tr. at 1627. *See also* Statement 8-R at 7, PFM-2 and 3.

As discussed below, the potential future issues identified in the March 2009 retool are less severe than those initially identified in the 2007 or 2008 RTEP. Despite this fact, no one has studied whether a cheaper or less intrusive fix than the proposed Susquehanna - Roseland line exists for those issues.

e. **March 2009 “Retool”**

In this proceeding, through discovery, the OCA requested the Company to update its analysis with the latest load projection data available. The Company responded with a “retool study” that was performed in January, 2009, and reviewed with PJM’s Transmission Expansion Advisory Committee in March of 2009. The March 2009 retool used PJM’s January 2009 peak load forecast. *See* PPL St. 8-R at 2 and Tr. at 1384. Based on this revised study, the twenty-three potential reliability violations from 2008 shrunk to only thirteen potential reliability violations. *See* PFM 1 and 2.

f. **Differences between reliability issues identified in 2007, 2008 and retool**

There are numerous material differences between the reliability issues identified in 2007 and those identified in the 2008 and 2009 analyses.

The following potential reliability “issues” that were cited as “driving the need” for the Susquehanna - Roseland line in 2007 *completely disappeared* in the 2008 RTEP evaluation, and did not re-appear in the March 2009 retool:

**Chart 1 – Potential Overloads from 2007 RTEP that Did Not Appear in 2008 RTEP or March 2009 retool<sup>4</sup>**

Facility	2007 RTEP Date of overload
Larrabee – Atlantic 230 kV	2013
Branchburg – Flagtown 230 kV	2013
Flagtown – Somerville 230 kV	2013
Cedar Grove F – Roseland 230 kV	2015
Roseland – Cedar Grove B 230 kV	2016
Pleasant Valley – Lawrence 230 kV	2018
Gilbert – Glenn Gardner 230 kV	2018
Somerville – Bridgewater 230 kV	2019
Cedar Grove F – Clifton K 230 kV	2019
Smithburg – New Prospect 230 kV	2020
Alburtis - Branchburg 500 kV	2022

In other words, 11 potential overloads that caused PJM to “approve” the Susquehanna - Roseland line in 2007 disappeared in 2008. And they have not reappeared.

In addition, there were numerous other differences between the alleged overloads justifying the alleged need for the Susquehanna - Roseland line since 2007:

**Chart 2 - Additional Differences In Reliability Issues between 2007 and 2009<sup>5</sup>**

	2007 RTEP Date of	2008 RTEP Date of	2009 retool Date of

<sup>4</sup> The 2007 RTEP issues are set forth in table 3.2 in ECC Cross Ex. 14 at 60, and the 2008 RTEP issues are summarized in PPL Ex. PFM-1.

<sup>5</sup> The 2007 RTEP issues are set forth in table 3.2 from ECC Cross Ex. 14 at 60, the 2008 RTEP issues are in PPL Ex. PFM-1, and the March 2009 retool results for single contingencies are summarized in PFM-2.

	Facility	Overload	Overload	Overload
1	Greystone Q-Whippany 230 kV	2013	2012	2013
2	Branchburg-Readington 230 kV	2018	2012	2012
3	Readington-Roseland 230 kV	2017	2012	2012
4	Bushkill-Kittatinny 230 kV	2016	2013	
5	Montville-Roseland 230 kV		2014	2016
6	Whippany-Roseland 230 kV	2015	2014	2013
7	Marlins Creek-Portland 230 kV	2019	2014	2016
8	Richmond-Camden 230 kV		2015	2017
9	W.Wharton-Greystone 230 kV	>2022	2016	2018
10	Kittatinny-Pohatcong 230 kV	2016	2016	2018
11	Kittatinny-Newton 230 kV	2018	2017	2021
12	Marlins Creek-Morris Park 230 kV		2017	
13	East Windsor-Smithburg 230 kV	2014	2017	
14	Waneeta-Richmond 230 kV		2017	
15	Newton-Lk Iliff 230 kV		2018	2022
16	Portland-Kittatinny 230 kV		2019	
17	Lk Iliff-Montville 230 kV		2019	
18	Hosensack-Eiroy 500 kV	2014	2019	
19	Glen Gardner-Chester 230 kV	2020	2019	2019
20	Portland-Greystone Q 230 kV		2020	
21	Coxcorner-Lumberton 230 kV	2018	2021	2022
22	Gilbert-Mornstown 230 kV	2017	2021	
23	Bridgewater-Middlesex 230 kV		2021	

The 2007 RTEP showed 25 potential overloads justifying the “need” for the Susquehanna - Roseland line. As shown above in Chart 1, 11 of them completely disappeared before 2008, and have not re-appeared. And, in the 2008 RTEP, 14 of the 25 issues identified in 2007 “justifying” construction of the Susquehanna - Roseland line appeared *but in different years*. In addition, in 2008 PJM identified nine brand-new potential reliability issues that were projected to arise in the future that also “required” constructing the Susquehanna - Roseland line.

And, most significantly, when PJM performed its March 2009 retool, almost half of the violations disappeared. The OCA’s experts believe the primary reason for the lessening of the potential reliability issues is because the January 2009 load forecast used in the computer models used during the March 2009 retool was lower, reflecting some of the reductions in

electrical demand from the current economic slowdown. See OCA St. 1 at 11-12 and OCA St. 2 at 5-6.

g. Why it matters

The 2008 RTEP identified different issues than the 2007 RTEP, different locations where potential issues could arise, and materially different potential future problems. Despite these differences, *PJM and PPL did not evaluate any alternatives* to address the issues (other than the Susquehanna - Roseland line).

And, most significantly, when evaluating the “need” for the line based on the January 2009 PJM load forecast, factoring in *some* reduced demand forecasts because of the current economic slowdown, the alleged issues materially changed again. The number of potential “single contingency” events dropped from 23 to 13.

Of the 23 original violations, only 13 remain. Of these 13 remaining violations, three occur after 2019. It is significant to note that the retool study eliminates the 500 kV overload, that was one of the 23 reliability violations from the 2008 RTEP. And the 500 kV overload identified in the 2007 RTEP has also disappeared. This leaves ten potential 230 kV system overloads, all or mostly located in New Jersey, driven by single contingencies, in or before the year 2019, as the prime justification for the S/R Line.

As the OCA’s expert Peter Lanzalotta explained, 230 kV system overloads can be addressed by reinforcement at the 230 kV voltage level. OCA St. 1 at 13. Such reinforcement techniques typically include reconductoring existing circuits with higher-capacity conductors or adding additional circuits or transformers.

However, despite the significant and material changes to the potential future reliability issues identified in the most recent analysis (the March 2009 retool), no one has

analyzed any alternative possible fixes other than the Susquehanna - Roseland line. Because of that, this Commission cannot approve PJM's application.

**h. The March 2009 re-tool does not reflect reality**

The March 2009 retool (on which the ten remaining violations are based) was performed before March 2009. As pointed out in the Direct Testimony of OCA's expert Robert Fagan, there are factors that affect future projected load levels that have materially changed since this retool study was prepared.

As discussed above, the retool study reduced the overall number of reliability violations supporting the need for the Susquehanna - Roseland line from 23 to 13, and it eliminated the 500 kV violations, leaving only 230 kV violations. A new, completely up-to-date, retool study should reduce this number of potential future violations even further, perhaps even entirely eliminating them. But PPL and PJM have refused to do an updated study.

The fewer violations that need to be addressed, the more likely it becomes that a less costly and less intrusive solution to the remaining potential future overloads will become feasible.

The significant material changes since the March retool include load forecast changes. In PPL's Application, the need for the Susquehanna to Roseland 500 kV line Project was based on twenty-three potential future reliability issues identified in the 2008 RTEP. These twenty-three potential issues were projected using computer-simulated load flow studies incorporating numerous assumptions – the most important of which is the “peak load forecast”. “Consumer demand in the Eastern Mid-Atlantic area is the main factor causing the electrical need for these facilities.....”PPL St. 8 (McGlynn) at 22. Thus, *if “demand” is not as high as expected, there is no need for the Susquehanna - Roseland line.*

The 2008 RTEP modeling, which came up with the initial list of twenty-three potential reliability issues (Exhibit PFM-1), was based on PJM's January 2008 load forecast. That forecast was prepared before the current economic downturn and the resulting decline in electrical demand. *See, e.g.* OCA St. 1 at 10. The March 2009 retool used the PJM Peak Load Forecast issued in January 2009. This load forecast ignores the declines in electrical demand based on the continuing recession during 2009. Tr. at 1384.

Despite the fact that the March 2009 retool included load forecasts that incorporated only a few months of the economic downturn (from late 2008), the twenty-three potential reliability issues were reduced to thirteen. And the March 2009 retool, using PJM's January 2009 Load Forecast, showed a material change in the number, timing and severity of potential future reliability issues. If the computer modeling is re-run with the current load forecast, and thus more accurately reflects the current economic downturn, there should be an even greater reduction in the number and severity of the possible future issues. There may be no need for *any* new transmission upgrades, or, at a minimum, nothing remotely as large, expensive and destructive as the currently-proposed project.

In addition, OCA witness Robert Fagan testified that neither PPL nor PJM included the results of the May 2009 RPM Auction in their analyses, where significant demand response "cleared" in the Mid-Atlantic region at issue (which should reduce peak electrical demand). *See* OCA St. 2 at 11. In addition, neither PPL nor PJM analyzed the effect of Pennsylvania's Act 129 or New Jersey's Energy Master Plan peak load growth reduction laws, both of which *require* the reduction of peak electrical usage.

PJM has admitted that changes in the critical assumptions used in its computer modeling -- such as the load forecasts and RPM auction results - can change the results. For example, PJM's Paul McGlynn testified that

*[T]he RTEP is a dynamic process and is based on a number of assumptions including load forecast, expected generation availability and demand response. Each of those assumptions can have an impact on the results of the RTEP analysis.*

PPL St. 8 (McGlynn) at 23 (emphasis supplied).

Q. What were some of the differences in assumptions between the analysis that was done in 2007 and the analysis that was completed in the fall of 2008?

A. The 2007 RTEP ... violations were based on the modeling assumptions that went into the 2007 RTEP, including load forecast, expected generator availability, and expected demand response. The need for the Susquehanna - Roseland Project was initially identified using these assumptions. However, PJM obtained updated information about its initial assumptions through 2007, and into 2008, which were incorporated into PJM's most recent assessments...

PPL St. 8 (McGlynn) at 23-25. The same type of update described by Mr. McGlynn above must be performed before the Susquehanna - Roseland line can be approved-- to assess the effect of the current load forecasts and the most recent RPM auction (which confirmed the availability of additional demand response to reduce peak loads).

The OCA asked PJM and PPL in this proceeding to perform another "retool" that would incorporate (1) the current load forecasts; (2) the results of the latest PJM RPM auctions; and (3) the effects of the Pennsylvania and New Jersey laws requiring reductions in peak loading. For some unknown reason, PJM and PPL, refused, despite the fact that changed assumptions can change the analysis.

This Commission should not approve the Susquehanna - Roseland line without an analysis of the current conditions. In fact, PJM will be incorporating much of the new

information (updated load forecasts and the results of the latest RPM auctions) into its 2010 load forecast *just two or three months from now (in January 2010)*.

PPL's application should be denied because: (1) PJM and PPL have not considered any alternatives to address the currently-identified issues; (2) the current economic recession requires an analysis based on a current peak load forecast; (3) significant quantities of Demand Response and Energy Efficiency resources cleared the May 2009 RPM Auction and must be modeled; and (4) Pennsylvania's Act 129 and New Jersey's Energy Master Plan peak load reduction initiatives need to be evaluated.

For these four reasons, the Commission cannot find that:

- (1) That there is a need for the Susquehanna - Roseland line.
- (2) That it will not create an unreasonable risk of danger to the health and safety of the public.
- (3) That it is in compliance with applicable statutes and regulations providing for the protection of the natural resources of this Commonwealth.
- (4) That it will have minimum adverse environmental impact, considering the electric power needs of the public, the state of available technology and the available alternatives.

52 Pa. Code §57.76(a).

In addition, because PPL has not evaluated current conditions, and has not considered any alternatives to address the currently forecast future conditions, the Susquehanna - Roseland line cannot be found "to keep the environmental incursion to a minimum" or to be "reasonably responsive to the need that exists". *Re Pennsylvania Power & Light Co.*, 50 Pa.

P.U.C. 480, 484 (1977); *Re West Penn Power Co.*, 54 Pa. P.U.C. 319, 320-327 (1980) (*emphasis supplied*)<sup>6</sup>. Thus, PPL's application must be denied.

## 2. Need for the Proposed Lackawanna Substation

The voltage issues that PPL claims may exist in the future at or near the Lackawanna substation do not require the running of a 500 kV line to Lackawanna. *See* ECC Cross Ex. 3. As PPL's Michael DeCesaris, the former head of PPL's planning department, explained:

You wouldn't be doing this (Susq – Lack) as a stand alone project. There are less costly alternatives to improve voltage (i.e., cap bank) and other ways to solve N-2 without this.

ECC Cross. Ex. 3 at 1. PPL's Gregory Smith, on cross, testified that less costly alternatives to deal with the potential future issues PPL identified near Lackawanna include the addition of capacitor banks at the Lackawanna substation. Tr. at 868-9. A capacitor bank is "a device that stores voltage, and it provides voltage support. It's something that utilities often locate at substations out along the line, in order to support voltage levels." *Id.* Other ways to address potential voltage issues include changing taps on a transformer and installing larger transformers. Tr. at 869-70.

Because a new transmission line as large as the proposed Susquehanna - Roseland 500 kV line would be overkill for the potential future voltage issues identified by PPL near Lackawanna, the "decision to go through Lackawanna will hinge on the siting study and the

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<sup>6</sup> In addition, PPL cannot prove that the Susquehanna – Roseland project is "reasonably responsive to the need that exists" because the project is clearly bigger than it needs to be to deal with the alleged reliability issues. PPL witness Olinick admitted that the proposed Susquehanna – Roseland line is large enough to handle an additional 1,600 megawatts of power from the third nuclear reactor planned for the Susquehanna area. *See* ECC Cross Ex. 37 and Tr. at 1764 – 5. Neither PPL nor PJM have presented any evidence explaining how the Susquehanna-Roseland facilities can be reasonably responsive to the reliability issues that they claim exist, yet still have 1,600 megawatts of "extra headroom".

evaluation of alternative line routes". ECC Cross Ex. 3 (September 7, 2007 email from PPL's project leader Gregory Smith).

However, as discussed below, PPL and PJM did not properly evaluate alternative routes. Thus, PPL cannot prove that they "need" to go through Lackawanna (and/or continue on through Saw Creek Estates) – just that they want to. For example, routes A and B both follow the identical path to Lackawanna, and continue on beyond Lackawanna until they diverge (for a time) at a point near Hawley. Tr. at 820-1. Certainly these are not "alternative" routes – both go right to Lackawanna. And, more importantly, as discussed below in section C, PPL chose the line route before Louis Berger and Associates completed the "siting study". As a result, PPL cannot prove that the Susquehanna - Roseland line needs to go through Lackawanna.

## C. SITING

### 1. Route Selection

PPL employed The Louis Berger Group ("Louis Berger") to evaluate three alternative routes, and help prepare the December 2008 Siting Analysis. The December 2008 Siting Analysis is attached as exhibit "C" to the Company's application (the "December 2008 Siting Analysis"). The December 2008 Siting Analysis represents PPL's attempt to justify the chosen route for the proposed high voltage lines.<sup>7</sup>

For the proposed high voltage lines, PPL initially developed potential routes using large area constraints. PPL Application Exhibit B at B-5 and B-6. After the Potential Routes had been initially developed to avoid large area constraints, the alignments were adjusted "to the extent possible to avoid small area constraints." *Id.* PPL then culled the potential routes down to three "alternative routes" for evaluation by Louis Berger, announcing the three alternative routes

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<sup>7</sup> The regulations define a high voltage line as "an overhead electric supply line with a design voltage greater than 100,000 volts." 52 Pa. Code § 57.1.

to be studied in June of 2008. *See* Tr. at 819. The three alternative routes to be evaluated by Louis Berger were dubbed Routes A, B and C - and are described in PPL's Application. *See e.g.* PPL's Application at Exhibit B, p. B-17; Tr. at 819 (testimony of PPL's project leader Gregory Smith). PPL concluded by "selecting" a preferred route from the alternative routes. Tr. at.819.

PPL asserts its justifications for selecting preferred route B in the December 2008 Siting Analysis, claiming that Route B was the most suitable route. December 2008 Siting Analysis at p. C-121. "The most suitable route is defined as the route minimizing the effect of the transmission line on all factors of the natural and human environment, while minimizing overall project costs and avoiding unreasonable routes and non-standard design requirements to the extent possible". *Id.*

However, the proffered "justifications" for selecting Route B downplay or ignore numerous significant facts identified by Louis Berger that should have eliminated Route B from consideration, including the fact that the "preferred route"

- Is the longest length;
- Crosses the most streams;
- Crosses the most wetlands;
- Crosses the most freshwater ponds;
- Crosses, by far, the most "Designated Natural Lands" including State Forest, State Park, and National Park Service lands; and
- Affects many more residences within 250 feet of the centerline as compared to Route A (216 instead of 58)<sup>8</sup>.

*See* December 2008 Siting Analysis at Table C-3, page C-11.

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<sup>8</sup> PPL project manager Gregory Smith testified that Route A, which was not selected as the "preferred route", would have the least impact on people's residences in Pennsylvania and New Jersey. Tr. at 892. *See also* Mr. Smith's Line Route Selection presentation dated June 23, 2008 at p. 24 and 25 (part of ECC Cross Ex. 6)(In Pennsylvania, route A is within 250 feet of only 59 residences, as compared to 217 and 259 residences for Routes B and C respectively. In New Jersey, Route A is within 250 feet of 284 residences, as compared to 405 and 478 residences for Routes B and C respectively). In addition, a proposed double circuit 500 kV line is planned to run right through the middle of 3000 homes in the Saw Creek Estates; the close proximity of the proposed facilities was clearly evident to all who participated in the site visits during this proceeding.

In addition, the Siting Analysis did not evaluate several crucial impacts:

- The December 2008 Siting Analysis makes no mention of potential impacts on ground water or drinking water despite the fact that affected individuals testified at the public input hearings about their concerns regarding potential adverse effects on their water supplies. *See e.g.* testimony of Thomas Dedea on March 20, 2009 (Tr. at 147). *See also* testimony of David Martin, General Manager of Saw Creek Estates (the "Saw Creek portion also includes wetlands and the creek itself is designated as a high-quality, cold water fishery by the Pennsylvania Department of Environmental Protection"). Tr. at 221.
- The December 2008 Siting Analysis contains no discussion of potential environmental impacts posed by the construction and operation of the substations.

Had PPL applied "good routing philosophies," the high impacts caused by route B should have eliminated it from consideration.

a. **Handcuffs**

PPL provided the preferred routes for each of the proposed high voltage lines prior to commencement of Louis Berger's work on the December 2008 Siting Analysis. Additionally, by preselecting the routes, PPL implicitly limited Louis Berger's role to justifying those routes. Handcuffed by PPL's determinations, Louis Berger attempted and failed to develop any other routes, or legitimate justifications for choosing Route B. Because PPL preordained the selection of the three preferred routes, no true analysis under 52 Pa. Code § 57.72(c)(10) occurred.

b. **PPL Selected Route B Before Announcing or Studying the Three Alternative Routes**

Perhaps most significantly, PPL selected route B before announcing - or evaluating - the three alternative routes.

PPL's project leader, Gregory Smith, summarized some of the key events in the siting process as follows:

- Three alternative routes were considered - Routes A, B, and C.
- PPL identified Routes A, B and C in June of 2008.
- PPL Electric selected Route B for this project.
- PPL announced its selection of Route B as the preferred route in August 2008.

Tr. at 819. *See also* PPL Application, Exhibit B at B-17(The three routes, identified as Routes A, B, and C, were announced publicly on June 5, 2008 via newspaper articles, PPL's project website [www.pplreliablepower.com], and other media announcements.).

After announcing the three alternative routes "to be evaluated" on June 5, 2008, PPL convened a number of public "open houses" from June 16 to June 30, to solicit input on the three alternative routes. *See, e.g.* Siting analysis at C-110.

The final decision on Route B was made by the head of the project -- PPL's Gregory Smith. *See* testimony of PPL's Gregory Smith, Tr. at 891. The selection of Route B was based primarily on three factors:

- Land and environmental impact considerations prepared by Louis Berger;
- Public outreach in Pennsylvania (input from ten public workshops held in communities along the three routes); and
- Cost comparison of the three alternatives in Pennsylvania and New Jersey.

*See* Tr. at 885, 887, 890, and 891 (testimony of PPL's Gregory Smith) and ECC Cross Ex. 6, (PPL project leader Gregory Smith's Line Route Selection presentation to the PPL board dated July 28, 2008 at slide 4).

PPL's Gregory Smith testified that he was the head of the project, and that he made the ultimate decision that Route B would be chosen - based on three "primary factors". *See* Tr. at 885, 887, 890, and 891. Mr. Smith testified that these three "primary factors" -- (1) land and environmental impact considerations by Louis Berger; (2) public outreach in

Pennsylvania; and (3) cost comparison of the three alternatives in Pennsylvania and New Jersey – were weighted “equally” in his decision. *Id.*

However, this testimony is unconvincing because it contradicts PPL’s internal documents – documents which clearly show that PPL had *already decided* on Route B *before* the Louis Berger evaluation *and* before the ten public workshops.

In a December 17, 2007 presentation, PPL’s Gregory Smith explained that the company had “selected ...the Louis Berger Group, to evaluate alternative line routes”, that contract negotiations were underway with Louis Berger, and that “line Siting activities will begin in January.” ECC Ex. 6 at page 5 (slide 3 of Gregory Smith’s 12/17/07 presentation). Despite the fact that Louis Berger was not yet retained, and had not started its evaluation of alternative line routes, on that date (December 17, 2007), PPL indicated that the high voltage line route would go from Susquehanna, to a new substation at Lackawanna, to Jefferson, NJ and then to Roseland, NJ.

Thus, six and a half months *before* announcing the three alternative routes that were to be “considered”, *before* the 10 public workshops and *before* the Louis Berger evaluation of the alternative routes, PPL and PJM *announced the chosen route.*

Thus, *at a minimum*, Route C was never properly considered. Route C goes nowhere near Lackawanna, and would not include a Lackawanna Substation. *See* PPL’s Application at Exhibit B, Figure B-4, at page B-16. In addition, Routes A and B follow the identical route to Lackawanna, and for many miles in New Jersey. In fact, Routes A and B are identical for all but one segment. Thus, they are not really “alternative” routes.

Numerous other documents also clearly show that PPL did not properly consider or evaluate the three alternative routes. In February of 2008, PJM's Paul McGlynn and PPL's project leader Gregory Smith, among others, worked on a "need statement" for Mr. McGlynn to use with the National Park Service at a meeting scheduled for March 10, 2009. ECC Cross Ex. 5 at 3. A February 29, 2008 draft of the "need statement" indicated that the line would run from Susquehanna, to "a new substation at Lackawanna, northwest of Scranton, PA", to a new switching station in Jefferson Township, NJ and then finally to Roseland to connect with existing PSE&G facilities. *Id.* at 4.

In addition, on March 10, 2008 – three months before the three alternatives to be "considered" were even announced – the PPL transmission planning department prepared a paper indentifying "the technical, operational and economical advantages for [PPL] to direct the Susquehanna-Roseland (SUSQUEHANNA - ROSELAND) 500 kV line through a specific part of its franchise territory." ECC Cross Ex. 11. at 1<sup>9</sup>. PPL's March 10, 2008 study identified a "preferred alternative" - which it called the "Northern Alternative" ECC Cross Ex. 11 at 8-9.

The "preferred alternative" (the "Northern Alternative") identified in March of 2008 was to run from Susquehanna to Lackawanna, and then cross the Delaware River into New Jersey. *Id.* PPL's project leader Gregory Smith testified, on cross, that the preferred "Northern Alternative" recommended in PPL's March 2008 report was Route B (the currently proposed route). Tr. at 911-912. In addition, the southern alternatives mentioned in the report "appear to be Route C". *Id.*

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<sup>9</sup>ECC Cross Ex. 11 was prepared in March of 2008 by PPL's transmission planning group - specifically Stephen Olinick (Senior Engineer in PPL's Transmission Planning Group) with input from other PPL transmission planners (Gregory Smith, Pat McMackin, Suzanne Glance, and Mike DeCesaris). Tr. at 1761 and 1762.

Thus, PPL chose Route B in March of 2008 as the preferred route before it announced the three alternatives it was “considering”, before the public “open houses” were held in to discuss which of the three alternatives should be chosen, and before Louis Berger evaluated the three alternative routes.

As a result, the currently proposed Route B certainly was not chosen based primarily on the three factors identified by Gregory Smith:

- Land and environmental impact considerations prepared by Louis Berger;
- Public outreach in Pennsylvania (input from ten public workshops held in communities along the three routes); and
- Cost comparison of the three alternatives in Pennsylvania and New Jersey.

See Tr. at 885, 887, 890, and 891 (testimony of PPL’s Gregory Smith) and ECC Cross Ex. 6, (PPL project leader Gregory Smith’s Line Route Selection presentation to the PPL board dated July 28, 2008 at slide 4). All of these “primary factors” occurred after PPL had chosen the route!

Because PPL did not properly evaluate alternative line routes, it did not comply with the Commission requirements of an analysis of the following elements for each HV line: 1) a general description of each alternative route, 2) a description of the methodology for developing the alternative routes, 3) a comparison of the relative merits of each route, and 4) a statement of the reasons underlying the selection of the preferred route. See 52 Pa. Code § 57.72(c)(10). Finally, because PPL did not properly evaluate alternative line routes, PPL can not establish that the choice of the line route will have minimum adverse environmental impact, considering the electric power needs of the public, the state of available technology and the available alternatives.” 52 Pa. Code §57.76(a).

As a result, PPL’s application should be denied.

## 2. Safety

Not separately addressed by the ECC.

3. **Health – Electric and Magnetic Fields**

Not separately addressed by the ECC.

4. **Environmental Impacts**

See discussion under sections IV.A, B and C.1 above.

5. **Protection of Natural Resources**

See discussion under sections IV.A, B and C.1 above.

a. **Rare, Threatened and Endangered Species**

Not separately addressed by the ECC.

b. **Wetlands**

Not separately addressed by the ECC.

c. **Tree Trimming**

Not separately addressed by the ECC.

d. **Other Natural Resources**

See discussion under sections IV.A, B and C.1 above.

6. **Reroutes to Avoid Saw Creek Estates**

See discussion under sections IV.A, B and C.1 above.

7. **Real Estate Values**

Not separately addressed by the ECC.

8. **Undergrounding**

Not separately addressed by the ECC.

9. **Delaware River National Recreation Area**

The ECC adopts the OCA's discussion and arguments regarding the Delaware

River National Recreation area.

10. Viewshed

Not separately addressed by the ECC.

11. Tourism

Not separately addressed by the ECC.

12. Construction Issues

Not separately addressed by the ECC.

13. Project Costs and Rate Recovery

The ECC adopts the OCA's discussion regarding project costs and rate recovery.

14. Other Economic Impacts of the Proposed Line

Not separately addressed by the ECC.

**D. EMINENT DOMAIN**

The ECC is not separately briefing the eminent domain issues but, instead, incorporates herein by reference, all of the arguments set forth in Section IV above that demonstrate that PPL has not sustained its burden of proving that the proposed Susquehanna-Roseland line is needed or that its applications meet the standards set forth in the Public Utility Code and relevant case law. Because the proposed Susquehanna-Roseland line is not needed and should not be approved, PPL's request for authority to exercise eminent domain should also not be approved.

**E. ZONING EXEMPTION**

Not separately addressed by the ECC.

**F. OTHER RELEVANT ISSUES**

1. Proposed Findings of Fact

The ECC adopts the OCA's proposed findings of fact *except for* proposed findings 6 and 20.

2. **Proposed Conclusions of Law**

1. The Commission has jurisdiction over the subject-matter of and the parties to this proceeding by virtue of Chapter 11 of the Public Utility Code, 66 Pa.C.S. §§1101, *et seq.*, and 15 Pa.C.S. §1511(c).

2. The Applicant, PPL Electric Utilities Corporation, has not met its burden of proving, pursuant to Section 332(a) of the Public Utility Code that the Application for a Certificate of Public Convenience and Authority to exercise the power of eminent domain for the construction and installation of the aerial electric high-voltage transmission line known as the Susquehanna-Roseland Line is necessary or proper for the service, accommodation, convenience or safety of the public. 66 Pa. C.S. § 332(a); 66 Pa.C. S. §§ 1101, *et seq.*

3. The Applicant, PPL Electric Utilities Corporation, has not met its burden of proving that the proposed facility known as the Susquehanna-Roseland Line is needed, pursuant to 52 Pa. Code § 57.76(a)(1).

4. The Applicant, PPL Electric Utilities Corporation, has not met its burden of proving that the proposed facility known as the Susquehanna-Roseland Line would not create an unreasonable risk of danger to the health and safety of the public, pursuant to relevant Commission siting regulations. 52 Pa. Code § 57.76(a)(2) .

5. The Applicant, PPL Electric Utilities Corporation, has not met its burden of proving that the proposed facility known as the Susquehanna-Roseland Line is in compliance with applicable statutes and regulations providing for the protection of the natural resources of this Commonwealth. 52 Pa. Code § 57.76(a)(3).

6. The Applicant, PPL Electric Utilities Corporation, has not met its burden of proving that the proposed facility known as the Susquehanna-Roseland Line would have a

minimum adverse environmental impact, considering the electric power needs of the public, the state of available technology and the available alternatives. 52 Pa. Code § 57.76(a)(4)

7. The Applicant, PPL Electric Utilities Corporation, has not met its burden of proving that the proposed facility known as the Susquehanna-Roseland Line is in compliance with the Commission's siting regulations.

**3. Proposed Ordering Paragraphs**

It is hereby ORDERED, in consideration of the foregoing discussion, findings of fact and conclusions of law, that the Application of PPL Electric Utilities Corporation filed pursuant to 52 Pa. Code Chapter 57, Subchapter G, for approval of the siting and construction of the proposed Pennsylvania portion of the Susquehanna-Roseland 500 kV transmission line in portions of Lackawanna, Luzerne, Monroe, Pike and Wayne Counties, Pennsylvania, at Docket No. A-2009-2082652 is denied.

**V. CONCLUSION**

For the above reasons, the ECC respectfully submits that PPL's application should be denied.

Dated: October 5, 2009

Respectfully Submitted,

  
Willard R. Burns

Willard R. Burns

Burns Law Firm, LLC

390 Oak Spring Road

Marianna, PA 15345

Phone: (412) 693-3035 Fax: (412)291-1498

wburns@burnslegal.net

Edmund "Tad" Berger

Berger Law Firm, P.C.

2104 Market Street

Camp Hill, PA 17011

Phone: (717) 920-8900 Fax: (717) 920-8901

publicutilitylaw@bergerlawfirm.net

BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION

In Re: Application of PPL Electric Utilities Corporation for  
Approval of the Siting and Construction of the Pennsylvania  
Portion of the Proposed Susquehanna-Roseland 500 kV  
Transmission Line

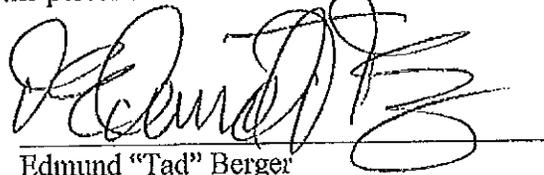
Docket Nos.  
A-2009-2082652  
A-2009-2082832

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CERTIFICATE OF SERVICE

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I hereby certify that on this day I have caused to be served true copies of the foregoing cover letter transmitting the Energy Conservation Council of Pennsylvania ("ECC") Main Brief upon the parties of record in this proceeding in accordance with the requirements of 52 Pa. Code Section 1.54 (relating to service by a participant) and the September 14, 2009, Briefing Order in this matter, in the manner and upon the persons listed on the attached Service List.



Edmund "Tad" Berger  
Berger Law Firm, P.C.  
2104 Market Street  
Camp Hill, PA 17011  
Phone: (717) 920-8900  
Fax: (717) 920-8901  
publicutilitylaw@bergerlawfirm.net

*Attorneys for:*  
*Energy Conservation Council*

Dated: October 5, 2009

## SERVICE LIST

### Via Hand Delivery of Letter, Certificate and Brief

Honorable Susan D. Colwell, ALJ Office of Administrative Law Judge Pennsylvania Public Utility Commission Commonwealth Keystone Building 400 North Street Harrisburg, PA 17120	
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### Via Email of Letter, Certificate, and Brief, and First Class Mail of Letter and Certificate

Dianne E. Dusman, Esquire Darryl Lawrence, Esquire Office of Consumer Advocate 555 Walnut Street, Forum Place, 5th Floor Harrisburg, PA 17101-1923	Charles Daniel Shields, Esquire Adeolu Bakare, Esquire PA PUC Office of Trial Staff P.O. Box 3265 Harrisburg, PA 17105-3265
Paul M. Schmidt, Esquire Zarwin Baum DeVito Kaplan Schaer Toddy, P.C. 1515 Market Street, 12 <sup>th</sup> Floor Philadelphia, PA 19102-1981	Kent D. Murphy, Esquire UGI Corporation 406 North Gulph Road King of Prussia, PA 19406
John H. Isom, Esquire Andrew S. Tubbs, Esquire Post & Schell, P.C. 17 North Second Street, 12th Floor Harrisburg, PA 17101-1601	Denise Foster, Esquire Joe Dominguez, Esquire Exelon Generation Co., LLC 300 Exelon Way Kennett Square, PA 19425
Shelby A Linton-Keddie Esquire Pamela C. Polacek, Esquire McNees Wallace & Nurick, LLC 100 Pine Street, P.O. Box 1166 Harrisburg, PA 17108-1166	Paul E. Russell, Esquire Associate General Counsel PPL Services Corporation Two North Ninth Street Allentown, PA 18101
Michael F. Faherty, Esquire Lavery Faherty Young & Patterson 225 Market Street, P.O. Box 1245 Harrisburg, PA 17108-1245	Susan Simms Marsh, Esquire Pennsylvania American Water Company 800 West Hershey Park Drive Hershey, PA 17033

David B. McGregor, Esquire  
 Post & Schell, P.C.  
 Four Penn Center  
 1600 John F. Kennedy Boulevard  
 Philadelphia, PA 19103-2808

Via First Class Mail of Letter and Certificate

Stanley & Susan Tomkiel 228 Belaire Drive Mt. Laurel, NJ 08054-2702	David Murphy and Marguerite T. Kranick 279 Faller Road Lake Ariel, PA 18436
Jeffrey J. Coccodrilli Ryan T. Coccodrilli Joseph Williams 4 East Forest Drive Saylorsburg, PA 18353	HARA Corporation c/o F. Andrew Wolf Corporate Counsel Bushkill Group Route 209, P.O. Box 447 Bushkill, PA 18324
D&L Realty Company 400 Mill Street Dunmore, PA 18512	Kenneth Powell & Linda Powell 1305 Justus Boulevard Clarks Summit, PA 18411
Rudolph Saporito & Maria Saporito P.O. Box 434 Lake Ariel, PA 18436-0434	Annette & Ralph Seeley 52 Saw Creek Estates Bushkill, PA 18324
Joseph K & Maria Doe 2117 Fifth Street East Meadow, NY 11554	Timothy and Debra Kocher 1184 Ridge Road Bath, PA 18014
Arlean K. Lilly 1260 Smith Gap Road Bath, PA 18014-8738	Donna Davis, Esquire P.O. Box 423 Dunmore, PA 18512
Geff Blake, Esquire Wright & Reihner, P.C. 148 Adams Avenue Scranton, PA 18503	Robert Fagan Synapse Energy Economics, Inc. 22 Pearl Street Cambridge, MA 02139
Al Spinelli 249 At The Falls Bushkill, PA 18324	Robyn Long 1176 Saw Creek Estates Bushkill, PA 18324

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Application of PPL Electric Utilities Corporation :  
Filed Pursuant to 52 Pa. Code Chapter 57, : A-2009-2082652  
Subchapter G, for Approval of the Siting and :  
Construction of the Pennsylvania Portion of :  
The Proposed Susquehanna-Roseland 500 kV :  
Transmission Line in Portions of Lackawanna, :  
Luzerne, Monroe, Pike and Wayne Counties, :  
Pennsylvania :

Petition of PPL Electric Utilities Corporation :  
For A Finding That A Building To Shelter : A-2009-2082832  
Equipment At The 500-230 kV Substation To :  
Be Constructed In The Borough of Blakely, :  
Lackawanna County, Pennsylvania is :  
Reasonably Necessary For the Convenience :  
Or Welfare Of the Public :

Application of PPL Electric Utilities Corporation :  
Under 15 Pa. C.S. §§1511(c) for a Finding and :  
Determination That The Service To Be Furnished :  
By The Applicant Through Its Proposed Exercise :  
Of The Power Of Eminent Domain To Acquire :  
A Right-Of-Way And Easement Over And Across : A-2009-2088297  
The Lands Of Chaudari Family Limited Partner- :  
Ship, David Murphy, and Marguerite T. Kranick :  
In South Canaan Township, Wayne County For :  
The Proposed Susquehanna-Roseland 500 kV :  
Transmission Line in Portions of Lackawanna, :  
Luzerne, Monroe, Pike and Wayne Counties, :  
Pennsylvania Is Necessary or Proper For The :  
Service, Accommodation, Convenience Or :  
Safety Of The Public :

Application of PPL Electric Utilities Corporation :  
Under 15 Pa. C.S. §§1511(c) for a Finding and :  
Determination That The Service To Be Furnished :  
By The Applicant Through Its Proposed Exercise :  
Of The Power Of Eminent Domain To Acquire :  
A Right-Of-Way And Easement Over And Across :  
The Lands Of The Property Owners Listed Below :  
For The Proposed Susquehanna-Roseland 500 kV :  
Transmission Line in Portions of Lackawanna, :