

COMMONWEALTH OF PENNSYLVANIA



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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 500 kV Transmission Line in Portions of Lackawanna, Luzerne, Monroe, Pike and Wayne Counties, Pennsylvania
Docket Nos. A-2009-2082652, *et al.*

Dear Secretary McNulty:

Enclosed for filing is the Reply Brief on behalf of the Office of Consumer Advocate, in the above-referenced proceeding.

Copies have been served as indicated on the enclosed Certificate of Service.

Respectfully Submitted,

A handwritten signature in black ink that reads "Dianne E. Dusman".

Dianne E. Dusman
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Enclosure

cc: Honorable Susan D. Colwell

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BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

<p>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 500 kV : Transmission Line in Portions of Lackawanna, : Luzerne, Monroe, Pike and Wayne Counties, : Pennsylvania :</p>	<p>Docket No. A-2009-2082652</p>
<p>Petition of PPL Electric Utilities Corporation for : a Finding that a Building to Shelter 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 :</p>	<p>A-2009-2082832</p>
<p>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, : Luzerne, Monroe, Pike and Wayne Counties, : Pennsylvania is Necessary or Proper for the : Service, Accommodation, Convenience or Safety : of the Public :</p>	
<p>Chaudari Family Limited Partnership, David : Murphy, and Marguerite T. Kranick :</p>	<p>A-2009-2088297</p>
<p>HaRa Corporation :</p>	<p>A-2009-2088337</p>
<p>Richard Coccodrilli, Jr., Jeffrey J. Coccodrill, : Jr, Ryan T. Coccodrilli, and Joseph : Williams :</p>	<p>A-2009-2088327</p>
<p>D&L Realty Company :</p>	<p>A-2009-2088340</p>
<p>Kenneth Powell and Linda Powell :</p>	<p>A-2009-2088359</p>

Rudolph Saporito and Maria Saporito : A-2009-2088312
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REPLY BRIEF
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I. INTRODUCTION

The Office of Consumer Advocate (OCA) hereby submits its Reply Brief in response to the Main Brief of PPL. For the reasons expressed below and in its Main Brief, the OCA submits that the Public Utility Commission (Commission) cannot approve PPL's Application on the basis of this evidentiary record. The Commission must deny the Application at this time. Alternatively, PPL could agree to have its Application held in abeyance and (1) further waive its right to invoke FERC transmission siting authority if a final decision is not made by this Commission within one year of PPL's Application filing date, and (2) submit a current retool analysis incorporating an updated peak load forecast, the results of the 2009 RPM auction and anticipated peak load reductions resulting from Pennsylvania Act 129 and the New Jersey Energy Master Plan. If, after a consideration of the retool analysis, the Commission determines that the SR500 Line is needed, then the Commission should condition its approval for this project such that PPL must reroute the line around Saw Creek and that no actual construction takes place until PPL has all required permits in-hand.

In its Main Brief, PPL misstated several of the OCA's positions as to the need for the SR500 Line and also misstated the evidence on several issues. Contrary to PPL's assertions, the OCA's position in this matter has been clear – PPL must provide current evidence based on the latest data available to support the claimed need for this Project. If the current evidence provides the needed support for the SR500 Project, then the Commission should approve the line only on condition that PPL reroute this line around Saw Creek. In addition, no actual construction should commence until PPL has all the required permits and approvals. On the other hand, if the current evidence does not support the need for the SR500 Project to be on-line

by June 2012, then PPL's Application should be denied and PPL and PJM should consider other options. In a nutshell, this is the OCA's case.

The March 2009 Retool Study resulted in the number of single contingency violations dropping from twenty-three to thirteen. The continued erosion of the economy, coupled with the Demand Response and Energy Efficiency resources that cleared in the May 2009 RPM Auction, along with the expected results of the PA Act 129 requirements and the New Jersey Energy Master Plan peak load reductions could produce some additional, significant changes if a current retool is performed. The OCA's Direct and Surrebuttal Testimonies have clearly set out these elements. The OCA has challenged the Company throughout this proceeding to demonstrate that the SR500 Project, based on current data, is needed. *PPL has failed to provide the current data.* In light of these facts, it is not clear how PPL could assert in its Main Brief that the need for the SR500 Project is not being contested. PPL M.B. at 12. As OCA witness Lanzalotta testified, "it is safe to say that I question the need for the S/R Line in 2012." OCA St. 1-S at 12.

PPL has the burden of proof in this proceeding. PPL must prove that the SR500 line is needed in the timeframe requested, that its proposal is commensurate with the level of need and that the route selected for the Project is reasonable. PPL has failed on all counts. The stale evidence provided by PPL (the March 2009 Retool Study based on data from the fourth quarter of 2008) does not accurately reflect the current state of the economy and does not accurately represent the demand for electricity in the year PPL claims the SR500 line is needed.

Regarding the decision by PPL to propose building this 500kV transmission line through the Saw Creek Estates Community, the record is replete with evidence as to why this choice is less than optimal and could very well present an unnecessary safety risk to the public.

Further, the Company's suggestion that this Commission should cede its ultimate decision-making authority to PJM is contrary to the regulations that govern this proceeding and is inconsistent with Pennsylvania law. PPL, the Applicant here, has a two-step burden to meet the need element under the regulations. PPL must prove that the SR500 Project is the best option among both transmission and non-transmission alternatives for dealing with the identified potential reliability violations. Then, PPL must also prove that the SR500 Project is needed to be in service by June 2012. To suggest that this Commission should simply give a blanket authorization and then wait for PJM to make the final decision on the SR500 Project is unacceptable and contrary to the law.

Finally, throughout this proceeding PPL has continued to profess safety as one of its core values. Maximizing the use of existing transmission rights-of-way should be a goal in any proceeding such as this, but such aspirations should not and cannot blur the line between goals and reality. The situation on the ground at Saw Creek is real – real people, real homes and real tight quarters. The area is simply not suited for the large-scale construction proposed. If a line is approved, PPL must find a way to reroute this line around Saw Creek, even if additional time and processes are required.

The OCA files this Reply Brief in continued support of its positions in this case, as clearly set out in its Direct and Surrebuttal Testimonies, and as thoroughly explained in its Main Brief.

II. SUMMARY OF THE ARGUMENT

PPL's arguments rest on an inaccurate description of the legal standard that this Commission must apply in a case of this magnitude and include a number of

mischaracterizations of the record evidence in this case. As such, PPL's arguments should be rejected.

First, PPL stated that the two principal issues are (1) whether PPL has demonstrated that the SR500 line is needed to provide reliable service to customers and (2) whether PPL has chosen a reasonable route for siting the Pennsylvania portion of the line. PPL M.B. at 12. While this statement is essentially correct, PPL goes on to say that "these issues, to a very large degree, are uncontested." Id. With respect to this second statement, nothing could be further from the truth.

The issue of whether the SR500 line is needed to serve the public is, to a very large degree, contested, despite PPL's assertion to the contrary. OCA M.B. at 22-71; *cf.* PPL M.B. at 12. The non-company parties to this case have expended a great deal of time and resources to rebut and to otherwise challenge PPL's position that the SR500 line is "needed to resolve numerous violations of mandatory NERC Reliability Standards in Pennsylvania and northern New Jersey." The lengthy evidentiary record in the instant case stands in stark contrast to PPL's contention that its "evidence is unrebutted." OCA M.B. at 22-71, Appendix C at 1-4; OTS M.B. at 11-16; ECC M.B. at 8-26. Simply put, PPL's contention that "[n]o party has contested this fundamental conclusion" (PPL M.B. at 12) is simply inaccurate and must be rejected.

Nowhere in the record of this case does the OCA or any of its expert witnesses agree with PPL that this proposed SR500 line is needed at this time. *Cf.* PPL M.B. at 12-13. Nor is there any merit to the Company's statement that it is unrebutted that a further update of the line would not change the need for it. Id. As has been fully set forth in the OCA Main Brief, the Commission simply cannot approve this Application on this evidentiary record, which

consists of stale data that fails to incorporate new and significant factors which are certain to impact whether and when the SR500 line may be needed. The specific inaccurate statements on which PPL's erroneous arguments rely are worth noting.

- “The OCA witnesses do not challenge PJM’s RTEP process or the analysis performed in developing the annual RTEP.” PPL M.B. at 48.

The OCA witnesses clearly stated that the analysis they undertook was limited in scope to the proposed SR500 line and that they were not addressing the validity of the *overall* PJM RTEP process. OCA St. 2-S at 12; OCA St. 1-S at 11-12. Both witnesses’ testimony emphasized that the PJM RTEP data and the assumptions that underlie the analysis were questionable with respect to supporting the claimed need for the SR500 line. It is true that the validity of the overall RTEP process was not within the scope of the witnesses’ testimony. Each OCA witness however, raised serious issues as to whether the specific planning criteria violations on which PPL relies for the purposes of attempting to prove that the SR500 is needed to serve the public would bear out if the recently substantially changed economic, load growth and demand resource circumstances were factored in.

- “The OCA appears to accept the RTEP as a reasonable tool and process for transmission line planning.” PPL M.B. at 48.

In fact, OCA witness Fagan found fault with the RTEP process in this matter on several levels. Specifically, the fact that the RTEP analysis done here does not include any of the PA Act 129 or New Jersey Energy Master Plan potential peak load reduction savings. OCA M.B. at 44-52; OCA St. 2 at 16-20; OCA St. 2-S at 6-8. Again, the scope of the OCA witnesses’ work was to review the Company’s filing and to arrive at a conclusion whether the Company had met the standards established by this Commission to prove that this specific proposed line is, in fact, needed to serve the public – not to critique PJM’s overall transmission line planning

process. More to the point, the Commission is not engaged in its own transmission line planning here. The purpose of this proceeding is to determine whether the criteria required to be proved for siting of this line under relevant regulations have been met. The crux of the differences in the positions of the Company and the non-company parties is that the Company maintains that the conclusion of PJM through the RTEP planning process that the SR500 line is needed in 2012 is sufficient to meet its burden of proving need under state statutory and regulatory standards. This is not the case, as will be discussed further below in Section IV. A., Legal Standards.

Perhaps the most inaccurate of the Company's misstatements of the OCA's position in this case is this:

- "...OCA has not challenged the results of the 2008 RTEP or the March 2009 Retool, based on the assumptions used in those analysis." PPL M.B. at 48.

The entirety of OCA witness Fagan's testimonies questioned whether the results of the RTEP presented, as well as the March 2009 Retool, were of any value in this proceeding, in light of the failure to incorporate substantial material changes that would reduce the number and severity of the projected violations that PPL argues support the need for the line. OCA St. 2 and 2-S. OCA witness Lanzalotta, based upon the results of Mr. Fagan's analysis, echoed the same concerns and questions. OCA St. 1 and 1-S. PPL does note that Mr. Lanzalotta's conclusions in his direct testimony were based upon the thirteen NERC Category B violations identified in the March 2009 Retool, but goes on to say that:

- "Mr. Lanzalotta did not mention and apparently was unaware that the March 2009 Retool also identified 10 NERC Category C.5 violations (double circuit tower line violations). PPL M.B. at 49.

As set forth in the OCA Main Brief, PPL did not include the C.5 planning standard violations in its initial case, nor did the Company provide the information in the most critical discovery responses. So for the Company to now say that, at the time of his Direct

Testimony, Mr. Lanzalotta was “apparently unaware” of the C.5s, when the Company itself had not modified its case, nor had it provided them otherwise in the most critical discovery responses, is disingenuous. *See* OCA Exh. RMF-2 at 10-11 (PPL Response to OCA 2-8 (Supplement) Attachment 1 (Chart shows only the thirteen Category B violations resulting from the March 2009 Retool)).

As set forth below, PPL’s argument is also inconsistent with the well-established legal standards that this Commission must apply in transmission siting cases of this magnitude. For these important reasons, PPL’s arguments must be rejected.

III. PROPOSAL FOR NEW FACILITIES

A. Legal Standards.

1. Applicants Seeking to Site and Construct High-Voltage Lines Must Meet An Enhanced Burden of Proof.

In its Main Brief, the Company sets forth its position on the legal standards governing the burden of proof, siting of electrical facilities and the exercise of eminent domain. PPL Main Brief at 16-23. The standards as described, even as to the burden of proof, however, are incorrect for a number of reasons. PPL M.B. at 16-17. Most significant is PPL’s failure to include any other than the description of the standard “burden of proof” requirement that generally applies in routine Commission proceedings. This discussion ignores important orders issued by the Commission that conclude that something more than the standard Section 332(a) burden of proof must be met when an applicant is seeking permission to build an overhead extra-high voltage line – a type of facility that has particularly significant and adverse impacts on the environment. OCA M.B. at 9-10.

First, in 1980, this Commission reviewed an Initial Decision dismissing an Application by West Penn Power Company for permission to exercise the power of eminent

domain and to construct a transmission line, a case that is directly relevant to the instant case. Re West Penn Power Company, 54 Pa. PUC 319 (1980) (West Penn). Therein, the Commission specifically stated that it would

“address only those issues wherein modification of the conclusion or reasoning of the ALJ is required; in all other respects, we adopt the reasoning and conclusions expressed by the ALJ as our findings.”

Id. at 320. The OCA would note that the Commission carefully scrutinized the Company’s evidence in support of the claimed need for the Harrison-Prexy-Yukon line, finding it to be deficient in a number of respects;¹ it did not accept the Company’s claims of need at face value, as PPL seems to imply should be the case in this proceeding with regard to the SR500 line.

PPL argues that once a *prima facie* case has been presented, if contrary evidence is not presented, there is no requirement that the applicant produce additional evidence in order to sustain its burden of proof. PPL M.B. at 17. This statement is directly contradicted by the West Penn Order, in which the Commission stated that

“the burden of proof has not been met even if no contradictory testimony is presented. We, being the trier of fact and the agency possessing expertise in the matter of utility regulation, are not required to accept even uncontradicted testimony as true.”

West Penn at 327-328. The OCA would note the importance of this principle, in light of the fact that PPL has argued that key issues in the instant application are “undisputed” and “unrebutted” by the protesting parties. The OCA strongly disagrees with this characterization of the evidentiary record, in that nearly every aspect of PPL’s evidence offered to support the conclusion that the SR500 line was needed to serve the public under the Public Utility Code was challenged and rebutted as being insufficient to support such a conclusion. Nonetheless, under

¹ See OCA M.B. at 10-11.

the language of the Commission in the West Penn Order, even if the Commission were to agree with PPL's characterization, it may still conclude that PPL did not meet its burden of proof in this siting application proceeding.

The Company's reliance on a 1994 case to support its understanding of the Commission's burden-shifting process in siting cases is misplaced. In Application of Pennsylvania Power & Light Co., 1994 PaPUC LEXIS 65 (Oct. 21, 1994) (PPL 1994), ALJ George Kashi recounted the evidence provided by the company to support the need for an upgrade to an existing 69 kV line. Id. at *37-*40. The ALJ further explained that PPL's opponent had no rebuttal: "The need for this project is uncontested. No party presented any evidence challenging the need for the project." Id. at *40. ALJ Kashi then concluded that "the applicant has proven that there is an immediate and future need for the project." Id. at *40. In its Main Brief, the Company claims that PPL 1994 held that an applicant automatically meets its need burden where its need evidence is uncontested. PPL Main Brief at 17. This reading of PPL 1994 is inaccurate and completely at odds with the Commission Order in West Penn. Contrary to PPL's argument, the Commission has not declared in a case such as this that the absence of rebuttal evidence (which is decidedly not the situation in the present case) means that a company's burden of proof has been met.

Moreover, it is important to note that the Commission in West Penn accepted ALJ Nemeč's Initial Decision in its determination that merely proving that some facility was needed - - and that the proposed facility met the need -- was not enough in cases where a utility was seeking to exercise the power of eminent domain. The Initial Decision stated, in pertinent part:

'The proposed facilities are not the sole or exclusive means of providing additional electric supply for the Blooming Grove area. The question to be decided here is not simply whether some kind of additional transmission facilities are needed, but rather whether

the facilities as proposed are necessary or proper. Thus, we must ascertain whether or not applicant has acted unreasonably in selecting the proposed facility as the means of providing load relief for the Blooming Glen service area...’ Thus, the applicant’s burden was increased beyond a mere showing of need for new facilities to *add a showing that the proposed facilities are reasonably responsive to the need that exists*.

OCA M.B., App. B, West Penn I.D. at 6 (italicized emphasis added), *quoting Re Pennsylvania Power & Light Co.*, 50 Pa. PUC 480 (1977). PPL does not acknowledge this important principle, nor cite the 1977 case, anywhere in its Main Brief. The ALJs applied this enhanced need standard in the recent TrAILCo case:

The inquiry is to determine whether public need for a transmission project exists depends on the specific facts presented regarding each project and upon the future impacts or consequences within a broad context. The impacts and consequences of approving the project and the impacts and consequences of not approving the project, both beneficial and adverse, must be weighed.

In re Application of Trans-Allegheny Interstate Line Co., Docket No. A-110172, Recommended Decision ² at 111 (Dated August 21, 2008) (TrAILCo R.D.). Later, the ALJs repeated the Commission’s ultimate conclusion in West Penn, specifying that an applicant for a certificate of public convenience must show that the proposed new facilities are reasonably responsive to the need that exists. Id. at 151. The Commission, in reviewing the Recommended Decision, concluded that the ALJs applied the appropriate statutory and regulatory considerations. In re Application of Trans-Allegheny Interstate Line Co., Docket No. A-110172, Final Order at 29-30 (Entered December 12, 2008)³ (TrAILCo Order).

This well-established and important principle underscores the need for *current accurate* information on the extent of the projected violations that may occur – otherwise, this

² Available at www.puc.state.pa.us/pcdocs/1019983.pdf

³ Available at www.puc.state.pa.us/pcdocs/1028423.doc

Commission is unable to assess whether this proposed SR500 line is commensurate with the claimed need for it.

2. The Commission's Regulations Are Not Guidelines.

PPL mischaracterizes the nature of the siting standards themselves when it states that the Commission's regulations "provide guidance regarding approval of an application for the construction and siting of high voltage aerial electric transmission lines." PPL M.B. at 17.

When a state agency promulgates regulations in accordance with its enabling statute, those regulations have the force and effect of law. See Commonwealth v. State Conference of State Police Lodges of the FOP, 520 A.2d 25, 29 (Pa. 1987) ("Agency rules and regulations, when properly adopted, have the force and effect of law."); Borough of Bedford v. Commonwealth, 972 A.2d 53, 61 (Pa. Commw. Ct. 2009) ("Case law has established that a regulation has the force and effect of law."); Capital City Cab Serv. v. Susquehanna Area Reg'l Airport, Docket No. C-20043019, Initial Decision, at 13, 2005 PaPUC LEXIS, at *38 (Dec. 8, 2005) ("The Commission's duly promulgated regulations have the force and effect of law."). Accordingly, it is erroneous for PPL to refer to the Commission's duly promulgated regulations as providing mere "guidance."

In addition, the language of the penultimate provision of the siting regulations is not permissive; it is mandatory:

The Commission will not grant the application...unless it finds and determines 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 the applicable statutes and regulations providing for the protection of the natural resources of the 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). Thus, the four specific findings and determinations in the above-quoted section are a prerequisite to the grant of an application to site a line. Moreover, as was made clear in the 1980 West Penn case and the recent TrAILCo R.D. and Order, the promulgation of these regulations did not obviate the requirement to assess whether the specific project is proportionate to the need, if any, that exists; that analysis remains part of the need determination under the regulations.

Therefore, in contrast to PPL's characterization of the regulations as "guidance," these siting regulations have the force and effect of law and, by the specific language used are mandatory, not permissive. In addition, as set forth below, PPL attempts to limit the scope and significance of the regulations when it claims that the Commission's environmental review is limited to the impacts at the proposed site.

3. The Commission's Environmental Review is Not Limited to the Impacts at the Site.

In the TrAILCo Order, as noted above, the Commission applauded the ALJs for applying appropriate statutory and regulatory standards in their consideration of the TrAILCo Application. TrAILCo Order at 6. The ALJs did not limit their consideration of environmental impacts to those directly in or adjacent to the rights-of-way. In fact, the ALJs observed the following:

Perhaps the greatest failure of TrAILCo on this record was [not] to comply with the last recommendation of the National Commission [on Energy Policy] quoted in the Introduction:

'...Applicants should provide information demonstrating not only environmental impacts, but also the process used to identify and consider other sites, as well as project configuration and technology choices that satisfy similar needs... The siting of electricity transmission infrastructure, in particular, should include a comprehensive system-wide review of alternatives...

We are unaware of any comprehensive system-wide review of alternatives that was presented on this record...

TrAILCo R.D. at 237 (emphasis added). Thus, this Commission's environmental considerations are not limited to right-of-way effects associated with the siting and construction of a line; they are broad and include comparison of the environmental effects of transmission as compared to other non-transmission alternatives. The Commission specifically stated that the ALJs properly examined issues such as the potential costs of greenhouse gas emissions associated with the type of generation that would be transmitted, as well as DSM and energy efficiency alternatives. TrAILCo Order at 29.

In contrast, PPL asserts that "[t]he Commission's environmental review is properly limited to the impacts at the site of the proposed facilities." PPL M.B. at 20, citing Del-AWARE Unlimited Inc. v. Pa. PUC, 513 A.2d 593, 596 (Pa. Commw. Ct. 1986)(Del-AWARE) and Phila. Suburban Water Co., 54 Pa. PUC 127, 135, 1980 PaPUC LEXIS 81, at *23 (Apr. 3, 1980)(PSWC). Both cases are facially distinguishable from the instant proceeding, as they involved siting of pumphouse stations for water systems—facilities that are clearly not within the purview of the Commission's siting regulations. *See* 52 Pa. Code § 57.71, *et seq.* Del-AWARE, 513 A.2d at 594; PSWC, 1980 PaPUC LEXIS at *1. These precedents simply do not stand for the principle that this Commission's environmental concerns in a transmission line siting proceeding are limited to the environmental effects in or adjacent to the rights-of-way.

In Del-AWARE, the Commonwealth Court began by pointing out that it had previously dismissed challenges to construction of the proposed pumphouse on two separate occasions: "Once again, we must consider and dispose of a challenge to the construction of facilities." Del-AWARE, 513 A.2d at 594. The court then explained that since there was prior Department of Environmental Resources (DER) evaluation of the environmental impacts of the

proposed project, Environmental Hearing Board (EHB) approval of the DER's determination, and Commonwealth Court approval of the EHB's determination, the Commission was severely limited in its ability to evaluate environmental impacts at locations other than the proposed site:

In this case, the PUC is empowered *only* to decide whether the proposed *site* of the Bradshaw pumphouse is reasonably necessary for the public convenience or welfare. Therefore, we hold that it may evaluate only the environmental impacts of placing the pumphouse at the proposed location. Although Del-AWARE argues that the PUC should have considered the impacts of (1) the pumphouse architecture and location on aesthetics, (2) noise from the pumphouse, (3) the Bradshaw reservoir and (4) the pumphouse and reservoir on the East Branch Perkiomen Creek, the Department of Environmental Resources (DER), as upheld by the Environmental Hearing Board (EHB), evaluated many of these environmental impacts when granting the permits necessary to construct the project. This Court thoroughly scrutinized and upheld EHB's review of DER's actions in *Del-AWARE*. We now hold that (1) the PUC was obliged to defer to DER's evaluation of environmental impacts within its jurisdiction, (2) there was a reasonable effort to reduce the environmental incursion caused by the pumphouse site to a minimum and (3) any alleged harm from the pumphouse site is clearly outweighed by its benefits.

Id. at 596. Consequently, in light of the mandatory language of siting regulations, specifically Sections 57.75 through 57.76, the Company's use of the Del-AWARE case to support its broad assertion that the Commission is restricted to considering environmental impacts only at the proposed site is incorrect.

Similarly, the facts of PSWC limited the Commission's ability to evaluate environmental impacts at locations other than the proposed site. PSWC, 1980 PaPUC LEXIS, at *22-*23. In PSWC, the protesting parties had asked the Commission to consider environmental impacts that the proposed site would have on future land development in areas surrounding the site. Id. The Commission responded by stating that it would not evaluate the environmental

effects of the site on future land uses, because it did not have the authority to determine those future land uses:

The regulation of land use and development is not specifically within the statutory mandate of the commission under the code; this kind of regulation is explicitly controlled by the PMPC (Pennsylvania Municipalities Planning Code). In this case, the commission is proceeding only to determine an exemption from the PMPC which gives the commission the power regarding the location of a building at a specific site. The statutory exemption provisions of the PMPC cannot be expanded to give the commission authority to examine other land uses in the area, nor can the code be expanded to give the commission this authority on the facts of this case.

Id. at *23. Once again, PPL’s use of this authority to support its assertion that this Commission’s ability to consider environmental effects is limited is incorrect. TrAILCo Order at 29; TrAILCo R.D. at 234-235.

As set forth in the OCA’s Main Brief, the transmission line siting regulations follow from Article 1 Section 27 of the Pennsylvania Constitution as interpreted by the Commonwealth Court in Payne v. Kassab, 114 Pa. Commw. 14 (Pa. Commw. 1973). OCA M.B. at 15-16. As such, the Commission’s consideration of environmental impacts is broad, not limited to the effects on rights-of-way. The Company’s assertion on this issue should be rejected.

B. Need.

1. Need for the Proposed Transmission Line.

a. Introduction.

In PPL’s Main Brief section, “Response to OCA,” PPL mischaracterized the OCA’s position in this case on several levels and incorrectly accused OCA witnesses of “flip-flopping” positions. PPL made statements and conclusions that are not supported by the

evidentiary record. Before turning to the substantive issues pertinent to the claimed need for the SR500 line, the OCA must take this opportunity to ensure that its position is clear.

The OCA submits that, on this evidentiary record, PPL has not established that the SR500 Project is needed by June 2012. Current, inclusive data is needed in order to determine what potential reliability violations actually exist. PPL has failed to provide this current data. Rather, PPL has rested its case on data that was compiled sometime during the fourth quarter of 2008. The OCA submits that such evidence is simply not sufficient for this Commission to authorize spending \$1.2 billion of the ratepayers' funds, nor is it sufficient to justify the additional burden on the environment and lands of the Commonwealth that would result from a massive extra high voltage (EHV) transmission line that has not been shown to be needed.

b. The Record Supports the OCA's Position.

PPL's opening statements regarding what the OCA's witnesses think of the RTEP and its support for the SR500 line are simply wrong, as even a cursory reading of the OCA's Surrebuttal Testimonies would show. PPL M.B. at 48-49. OCA witness Fagan's Surrebuttal Testimony provided the following as to his position regarding the RTEP:

MR. HERLING STATES THAT THE OCA WITNESSES ACCEPT THE RTEP AS A REASONABLE TOOL AND PROCESS FOR TRANSMISSION LINE PLANNING, AND THAT THE OCA WITNESSES ACCEPT THE RESULTS OF THE 2008 RTEP AND MARCH 2009 UPDATE, BASED ON THE ASSUMPTIONS USED IN THOSE ANALYSIS. IS THIS A CORRECT CHARACTERIZATION OF YOUR TESTIMONY?

A. No. My direct testimony focused on the need for the SR500, and some of the underlying assumptions used by PJM/PPL in assessing that need. My testimony did not attempt to characterize the whole of the RTEP planning process, and did not address numerous analytical aspects of the planning process. My

testimony focused on the impact of certain assumptions used by PJM/PPL, and did not include a detailed examination of all other assumptions also utilized by PJM/PPL in the RTEP process. My testimony also did not address other non-SR500-need aspects or the results of either the 2008 RTEP or the March 2009 update to that RTEP.

OCA St. 2-S at 12. OCA witness Lanzalotta's Surrebuttal Testimony, in relevant part, provided the following:

As for the contention that I accept the need for the S/R Line in 2012, my testimony accepts the fact that there are still NERC Category B contingencies that cause overloads starting at least in 2012, based on the data and assumptions used in the RTEP and in the update. Since the reasonableness of these data and assumptions is being questioned, **it is safe to say that I question the need for the S/R Line in 2012.**

OCA St. 1-S at 12 (emphasis added). As the preceding statements show, PPL's characterizations of what the OCA witnesses "accept" or "agree" with are totally without merit.

In a similar vein, PPL's assertions as to Mr. Lanzalotta "flip-flopping" positions between his Direct and Surrebuttal Testimonies are equally lacking in record support. PPL not only confuses the facts as to what information Mr. Lanzalotta was provided with through the discovery process, but also is incorrect about the timing of when such information was made known. Moreover, PPL argues that Mr. Lanzalotta's interpretation of the NERC Category C standards is incorrect, when, in fact, in its Main Brief, PPL itself misinterprets what PJM witness Herling explained during cross-examination about load shedding. In the following section, the OCA will explain in detail the issue surrounding NERC Category C violations and load shedding. But, first, the OCA will address PPL's inaccurate statements of Mr. Lanzalotta's position on the need for the SR500 line.

In its Main Brief, the Company discusses Mr. Lanzalotta's Direct Testimony and states that "Mr. Lanzalotta did not mention and apparently was unaware that the March 2009

Retool also identified 10 NERC Category C.5 violations (i.e. double circuit tower line violations).” PPL M.B. at 49. Mr. Lanzalotta did not mention these violations in his Direct Testimony because, up to that point in time, the Company had not mentioned NERC Category C violations in its testimony as justification for the need for the S/R Line. As Mr. Lanzalotta discussed in his Direct Testimony:

As part of PJM’s RTEP process, last March it prepared what is called a “retool” study that looked at changes in load forecast, in available generation, and in other factors that affect the need for system reinforcement. This March 2009 PJM Retool Study claims to reaffirm the need for the S/R line in 2012. However, the Company did not update the list of 23 potential reliability violations that was filed in this proceeding until June 25, and then only after inquiries by the OCA. This updated list of potential reliability violations² shows that the effect of this Retool Study was to substantially reduce the number of potential reliability violations in support of the S/R line. Table 1 below reflects the transmission system facilities that were reflected in the 23 reliability violations filed with the Company’s Application, and compares the year of overload from the Company’s Application with the year of overload from the March 2009 PJM Retool Study.

² OCA Exhibit RMF-2 at 3 (PPL’s Supplement to response to OCA-2-8).

OCA St. 1 at 11. As Mr. Lanzalotta testified, on June 25, 2009, the Company, responding to OCA discovery, supplied the OCA with an updated list of violations that showed the original list of twenty-three potential reliability violations found in PPL Exhibit PFM-1 had now shrunk to thirteen potential reliability violations as a result of the 2009 March Retool Study. This is the information that Mr. Lanzalotta used to construct Table 1 in his Direct Testimony. OCA St 1 at 12. PPL did not include any double circuit tower contingencies in this updated list of violations provided to the OCA on June 25, 2009.

Also in its Main Brief, the Company claims that “in his surrebuttal testimony, Mr. Lanzalotta takes a new position in response to the 10 NERC Category C5 violations described in Mr. McGlynn’s rebuttal testimony.” PPL M.B. at 50. This statement implies that Mr. Lanzalotta

had taken a position on these NERC Category C5 violations prior to his surrebuttal testimony. Of course, as noted by the Company in the quote from page 49 noted above, this is not the case. Mr. Lanzalotta *first* addressed these NERC Category C violations in his surrebuttal testimony, because, as discussed above, at the time the OCA's Direct Testimony was submitted the Company had not included, nor had it relied upon, these tenCategory C5 violations in the justification for the SR500 line. The first time PPL included these potential double circuit tower contingencies as support for the need for the SR500 line was in Mr. McGlynn's Rebuttal Testimony, served on August 7, 2009, almost 6 weeks after the OCA's Direct Testimony was served. PPL St. 8-R; PPL Exhibits PFM-2, PFM-3.

Continuing to address Mr. Lanzalotta's Surrebuttal Testimony, the Company states that "Mr. Lanzalotta first contradicts his own direct testimony and contends that the 13 NERC Category B violations may not be sufficient to justify the line. (OCA St.1-S, p. 4.)" PPL M.B. at 50. Both of these contentions are incorrect. Page 15 of Mr. Lanzalotta's direct testimony provides:

If we assume that the March 2009 PJM Retool Study models the most up-to-date projected loads and other relevant planning assumptions, then the Study results show that there is a need for transmission system reinforcement starting somewhere around 2012-2013. Under these assumptions, there are so many 230 kV system violations projected for the next ten years that a reinforcement at the 500 kV voltage level is a reasonable approach to dealing with these projected violations.

However, as pointed out by Robert Fagan in his Direct Testimony in this proceeding, **the March 2009 Retool Study is not up to date** and may no longer accurately represent the need for transmission system reinforcement. This study needs to be redone with the most up-to-date information. If the result of this updated study is to further reduce the number of 230 kV violations that the proposed S/R 500 kV line is intended to address, it may be that smaller and more localized transmission system reinforcements will be preferable to the proposed S/R 500 kV transmission line.

OCA St. 1 at 15 (emphasis added). Page 4 of Mr. Lanzalotta's surrebuttal testimony provides:

In actuality, the effect of the retool study was to cut the number of potential reliability violations under normal conditions and under single contingency conditions related to the S/R Line just about in half. It is not unreasonable to ask whether further changes in the other assumptions under which these potential reliability violations are studied could have a similarly dramatic effect.

OCA St. 1-S at 4. As can be seen, Mr. Lanzalotta's surrebuttal testimony is completely consistent with his direct testimony. Also, we see that Mr. Lanzalotta is not saying that "13 NERC Category B violations may not be sufficient to justify the line," as claimed by the Company. PPL M.B. at 50. Mr. Lanzalotta testified that the 2009 Retool, on which the thirteen NERC Category B violations are based, does not reflect the most up-to-date data and that there is reason to believe that using the most up-to-date data would reduce this number of violations further. The Company then moves on in its argument to the NERC Category C violations and attempts to show how Mr. Lanzalotta is incorrect on the issue of load shedding, but as the OCA will discuss next, PPL's discussion in this area is incomplete, at best.

c. NERC Category C Potential Reliability Violations.

A complete discussion of this issue is provided in the OCA's Main Brief. OCA M.B. at 65-69. PPL's Main Brief, however, substantially muddies the water on this important issue as some of the statements made therein are not consistent with the record, especially with regard to the testimony of PJM witnesses Herling and McGlynn on this issue. The OCA submits the following as a further clarification of the issue and of the OCA's position on the potential Category C violations.

As discussed above, OCA witness Lanzalotta responded in his Surrebuttal Testimony to PJM witness McGlynn's Rebuttal Testimony, where for the first time on the record

of this case, PPL provided these ten double circuit tower contingencies as additional justification for the SR500 line. PPL St. 8-R; Exh. PFM-3. In his Surrebuttal Testimony, Mr. Lanzalotta testified that:

... double-circuit transmission tower contingencies are treated differently in that, under such contingencies, NERC permits firm loads and firm power transfers to be curtailed, in an effort to maintain thermal loading and voltage performance on the elements remaining in service within specified limits. Specifically, NERC standards state:

Depending on system design and expected impacts, the controlled interruption of electric supply to customers (load shedding), the planned removal from service of certain generators, and/or the curtailment of contracted Firm (non-recallable reserved) electric power transfers may be necessary to maintain the overall reliability of the interconnected transmission systems.

OCA St. 1 at 3-4 (footnote omitted); *see also* OCA Exhibit PJJ-4 at 2. In its Main Brief, PPL asserts that Mr. Lanzalotta is incorrect about curtailment of load during a double circuit tower contingency. PPL M.B. at 51. Mr. Herling was asked about this issue during cross-examination, as follows:

Q. I'm looking at the language of footnote C, to the column that said, controlled loss of demand or curtailment transfers are permitted for all the category C contingencies. And it says, for the curtailment of contracted firm, non-recallable reserved electric power transfers may be necessary to maintain the overall reliability of the interconnected transmission systems.

A. But all of those are based on system design, as I am aware, the universal interpretation of that footnote is that the system can be designed in a manner to dump customers, to dump generation, or to interrupt transfers, but you cannot use operator actions to facilitate those actions.

Tr. at 1311; *see also* OCA Cross Exhibit 15 at 2. OCA witness Lanzalotta relied on the NERC language to testify that curtailments were allowed as a response to this rare event, a double

circuit tower contingency. PJM witness Herling does not disagree, but conditions his agreement by stating that only automatic curtailments are allowed.⁴ OCA Cross Exhibit 15 is a reproduction of the applicable NERC standards and the accompanying footnotes. Neither the NERC standards nor the footnotes provide that curtailments of this type can *only* be automatically initiated. *See* Exhibit PJL-4. The OCA submits that this interpretation on the part of PJM should cast some doubt on the use of these double circuit tower contingencies as support for the SR500 line in this proceeding. Moreover, there is a substantial discrepancy as to how “consequential load loss”⁵ is being dealt with by PPL in this instance.

In its Main Brief, PPL stated as follows:

Therefore, as explained by Mr. Herling, in response to NERC Category C standard violations, customer load may be shed only due to consequential load loss. That is, load loss may occur as a result of the loss of the two circuits only by system design.³⁶

³⁶ As explained by Mr. Herling, PJM has established a limit of 300 MW for consequential load loss and has designs (sic) its system accordingly. Tr. at 1307.

PPL M.B. at 52. The first sentence of the quoted passage is obviously in error. Even in Mr. Herling’s interpretation of the NERC standards, there are *two* ways that load can be shed in response to a Category C event, (1) if it is the result of consequential load loss, or (2) if the system is designed to automatically shed load with no operator involvement. The second sentence in the above quote is confusing and wrong. As there appears to be ample confusion in this area, an example may help.

A small factory is served by one set of transmission lines, a double circuit on one tower. No other utility infrastructure connects this factory to the grid. If that tower fails and

⁴ In Mr. Herling’s Rejoinder Testimony he testified that the existing PPL system is not currently set up for such automatic curtailments. PPL St. 7-RJ at 4.

⁵ Consequential load loss occurs when a failure of the system results in customer load being dropped because there is no secondary path available for current to flow and support that load.

both lines go out of service (a double circuit tower failure, or C5 contingency), the loss of load will have been a consequence of the tower failure. As the quoted passage above indicates in footnote 36, PJM considers this rare type of event to be acceptable, so long as the loss of load is 300MW or smaller. PPL M.B. at 52; *see also* OCA Cross Exhibit 16 (excerpt of the transcript from the TrAIL proceeding in which Mr. Herling confirmed that a consequential load loss of 300MW or less is acceptable to PJM for Category C contingencies). Mr. Herling was also asked about this acceptable amount of consequential load loss during cross-examination, as follows:

Q. Is the planning for no loss of load more expensive than permitting 300 megawatts of consequential load loss in such contingencies?

A. If we were to not allow consequential load loss, yes, absolutely, we would be required to build additional feeds to those loads to ensure that they were not dropped as a result of one of these events.

Tr. at 1311. Mr. Herling's testimony is consistent on this issue; a certain level of consequential load loss, here 300MW or less, is considered acceptable by PJM. The alternative approach, to not allow any consequential load loss, as Mr. Herling stated during cross-examination, would obviously lead to greater expense. PPL/PJM, however, applied a different standard when it analyzed the ten double circuit tower contingencies listed in Exhibit PFM-3.

Mr. Lanzalotta testified as follows in surrebuttal:

In response to discovery on this matter,² the Company states that no load loss was considered acceptable for double circuit tower contingencies when it developed the list of apparent violations presented in Exhibit PFM-3. So, in effect, the Company is using a more stringent standard than is required by NERC standards to increase the number of apparent potential reliability violations in its attempt to continue to demonstrate the need for the S/R Line.³

² Response to OCA-14-2.

³ The Company conditions its response by saying that system operators wouldn't have time to react to a double-circuit tower outage by shedding load or rejecting generation. This ignores the fact that transmission system controls are typically designed to address such problems automatically, especially if such problems threaten system stability --and that such capabilities would likely be enhanced as smart grid functions are more fully developed.

In response to OCA-14-2, as Mr. Lanzalotta testified, the Company provided a sworn response that **no load loss was considered acceptable** for the double circuit tower contingencies listed in Exhibit PFM-3. This is a serious flaw in the Company's case for any C5 violations, and, it is un-rebutted. PPL served the Rejoinder testimony of PJM witness Herling, largely in response to the Surrebuttal Testimony of Mr. Lanzalotta. PPL St. 7-RJ. In that Rejoinder testimony, Mr. Herling spent considerable effort attempting to show why Mr. Lanzalotta's interpretation of the NERC standards for Category C events, the automatic versus operator-initiated curtailment, was incorrect. Mr. Herling, however, never addressed the facts just quoted.

To sum up, PJM considers 300MW or less to be acceptable for a consequential loss of load. This means that if a double circuit tower failure occurs, as in the hypothetical example above, but that small factory load is less than 300MW, there is no Category C5 contingency. It simply does not count as a potential reliability violation that must be corrected. PPL admittedly failed to consider this PJM concept when it created its list of ten potential Category C5 reliability violations, as shown in PPL Exhibit PFM-3. The OCA submits that, in light of this evidence, the stated need to plan the transmission system in order to correct these double circuit tower contingencies, in this instance, should be given little weight.

d. A Current, Inclusive Retool Study is Needed.

i. Introduction.

In its Main Brief, the Company argues that Mr. Fagan's continued calls for a current retool study should be ignored, and are unnecessary. PPL M.B. at 54-70. The OCA

provided a thorough discussion of Mr. Fagan's positions in its Main Brief and explained in detail why a current retool study is required in order for a reasonable decision to be made here. OCA M.B. at 25-56. The following will add to that discussion, specifically to address certain issues raised by PPL in its Main Brief. Although, first, the OCA will make clear its position on the retool issue.

PPL has failed to update the record in this case, even though the OCA has repeatedly called for the Company to do so and even though the most recent retool, the March 2009 Retool Study, was compiled using data no more recent than from the fourth quarter of 2008. As Mr. Fagan has testified, it is simply unreasonable for an applicant that is requesting permission to spend \$1.2 billion of the ratepayers' money to rely on such dated assumptions when the economy is clearly in a state of flux. *See, e.g.*, OCA St. 1-S at 9. PPL needs to update the March 2009 Retool Study with the latest data, particularly an updated load forecast and include sensitivity analysis for the projected PA Act 129 and New Jersey Energy Master Plan projected peak load reductions. This is what the OCA has been advocating since its Direct Testimony was filed in June 2009. The Company, however, has refused to provide these updates. The OCA submits that the Commission cannot approve PPL's Application based on such clearly outdated information.

As for the issues raised in this section of PPL's Main Brief, the OCA has already thoroughly addressed each item. The Company's arguments are as follows: (1) Demand Response will not help because it has no effect on the Category C violations; (2) Mr. Fagan advocates for a piecemeal update; (3) PA Act 129 and NJ EMP peak load reductions are too speculative to consider for planning purposes; and (4) even if the SR500 line is not needed in

June 2012, that will just give PPL some “breathing room.” OCA M.B. at 25-56. The OCA will briefly address each of these points below.

ii. PPL’s Reliance on the Category C Violations is Misplaced.

PJM witness Herling acknowledged in his Rebuttal Testimony that the increased availability of Demand Response and Energy Efficiency resources, such as the amounts that cleared in the May 2009 RPM Auction, may push out the load deliverability violations (the single contingencies found in PPL Exhibit PFM-2) by one to two years. PPL St. 7-R at 9. In contrast, however, the Company argues that no level of Demand Response will have any effect on the Category C violations, thus, the SR500 line is still needed by June 2012 and any discussions about demand response resources are “irrelevant.” PPL M.B. at 57. This is a critical point, as the Company continues to use the Category C violations, the same set of ten potential violations that appeared only in the Company’s testimony in August 2009, almost as some type of “trump card.” As the OCA has shown in the previous section of this Reply Brief, however, PPL used the wrong standards (no loss of load was acceptable) in arriving at these Category C5 potential reliability violations.

As Mr. Herling acknowledged, Demand Response resources in sufficient quantities could affect the year of need for the SR500 project, because such capacity resources would tend to reduce or eliminate the thirteen potential reliability violations found in PPL Exhibit PFM-2. The OCA’s argument is credible and on point – a current retool study is needed to accurately assess how any remaining potential reliability violations have been affected by all that has changed since the fourth quarter of 2008.

iii. Mr. Fagan's Testimonies Do Not Advocate a Piecemeal Approach, but Rather Call for a Complete Retool.

PPL attempts to discredit Mr. Fagan's work as provided in Table 7 by suggesting that changes in peak load alone may not necessarily affect the need for the SR500 Project. PPL M.B. at 56-57. PPL completely misses the point here. In his Direct Testimony, Mr. Fagan addressed the impacts of the recession on demand for electricity, the large amount of Demand Response resources that had just cleared the May 2009 RPM Auction, and the potential impacts of peak load reductions that could be achieved via the PA Act 129 and New Jersey EMP initiatives. OCA St. 2. All of these events could have an enormous impact on the need for the SR500 Project, and in the absence of a complete retool from PJM, Mr. Fagan created Table 7 to show what impacts these events could have. OCA St. 2 at 25-27. As Mr. Fagan testified:

YOU REFER TO PJM/PPL'S NEED TO INCLUDE AN UPDATED LOAD FORECAST, 2012/13 RPM DEMAND RESPONSE, AND ADDITIONAL NJ AND PA DEMAND SIDE RESOURCES. WITHOUT PERFORMING A RE-TOOL ANALYSIS, CAN YOU EXAMINE HOW THE CLAIMED RELIABILITY VIOLATIONS OF PFM-1 AND OF THE SUPPLEMENTAL RESPONSE TO OCA-2-8 MAY "SHIFT" TO LATER YEARS WITH THESE ASSUMPTIONS?

A. Yes, roughly.

OCA St. 2 at 25. Mr. Fagan was very clear in his Direct Testimony about how he constructed Table 7 and its purpose in this proceeding. It was an attempt, using the best data available to OCA, to replicate what an updated analysis could show. Mr. Fagan at no time testified that Table 7 should be a proxy for such an updated analysis by the Company. In his Surrebuttal Testimony, Mr. Fagan made this point:

I do not advocate a piecemeal approach. I explicitly recommend a "retool" using PJM protocol, which does not address assumptions piecemeal but rather uses the most up-to-date information available on all relevant assumptions. I focus on demand-side assumptions

because the purported year of need for SR500 is 2012, and PJM just completed an RPM auction that resulted in significant 2012 demand-side resources. To the extent that those resources push back the year of need, then PJM should reassess the project – using the retool analysis mechanism – and as appropriate, incorporate updated assumptions relevant to any revised year of need. In particular, this means that if the effect of the RPM auction alone is to shift the year of need from 2012 to 2013 or 2014, then PJM must re-evaluate whether the SR Line is a proportionate response to the need that exists. Accordingly, PJM should also use 2013 or 2014 assumptions for the other critical modeling elements – namely, additional RTEP transmission that is likely to be in place in those years, and an updated assessment as to the mix of generation resources to use in the model. **I think the PA PUC deserves nothing less than the best and most timely information available, especially considering that the Company is requesting to spend approximately \$1.2 billion of the ratepayers' money.**

OCA ST. 2-S at 11-12 (emphasis added).

PPL's attempts in its Main Brief to portray Table 7 as something which it is not completely miss the point. Mr. Fagan challenged the Company to provide a complete retool, with all the current data in the Company's possession, and the parties could then ascertain whether Mr. Fagan's analysis was accurate. His ultimate recommendations were:

- PJM/PPL should conduct a “re-tool” analysis, with appropriate sensitivity analyses, to demonstrate the effect of increased EE and DR, and should use an updated load forecast when doing so.
- PJM/PPL should file the results of any such retool analyses in this docket as part of this application.

OCA St. 2 at 27.

- iv. PJM/PPL Should Provide a Sensitivity Analysis using Projected PA Act 129 and New Jersey EMP Peak Load Reductions.

At pages 59-65 of its Main Brief, PPL attempts to downplay any potential effects the PA Act 129 and the New Jersey EMP initiatives may have on reducing peak load growth, and in turn, the possible effects on the need for the SR500 Project. PPL M.B. at 59-65. The OCA

provided a complete discussion of this issue in its Main Brief. OCA M.B. at 44-52. The following will add to that discussion, specifically to address some of the statements in PPL's Main Brief.

In its Main Brief, PPL discusses the fact that Mr. Fagan estimated that PECO would achieve its Act 129 reductions and that the New Jersey EMP would achieve 50% of its goals. PPL M.B. at 60. The OCA submits that Mr. Fagan's estimates here are reasonable. PPL, however, argues that "Mr. Fagan significantly overstates the potential impact of these state initiatives." PPL M.B. at 60. PPL and PJM are completely unwilling, however, to incorporate any of these peak load reduction initiatives in their planning process. As the OCA discussed at length in its Main Brief, and will briefly recap here, the Company's rejection of this type of planning is unreasonable. OCA M.B. at 44-52.

At page 55 of its Main Brief, PPL provided the following footnote:

⁴⁰ EMAAC is comprised of Rockland Electric Company, Public Service Electric and Gas Company, Jersey Central Power and Light Company, Atlantic City Electric Company, Delmarva Power and Light Company and PECO Energy Company. PPL Electric St. 8, pp. 21-22. NERC Reliability Standards violations identified in the PJM RTEP for EMAAC **are the primary drivers** for the need for the S-R Transmission Line.

PPL M.B. at 55 (emphasis added). PECO is in EMAAC, along with all of the New Jersey electric utilities. These are the utilities that Mr. Fagan used in his estimates for peak load reduction potential. The same utilities that the Company agrees are within the area where the primary drivers for the SR500 project are located. It makes no sense to refuse to recognize any level at all, 0 MW, of these potential peak load reductions. As Mr. Fagan explained during cross-examination, PECO's peak loads occur at the same time as peak loads are seen in EMAAC. Tr. at 1796-97.

The OCA submits that it is unreasonable for PPL and PJM to completely discount these important state initiatives. A current retool, with some sensitivity analysis as recommended by Mr. Fagan should be created to allow the Commission to decide for itself what level of importance in the planning process these initiatives should be given.

v. The Decision to Authorize this Project Belongs to the Commission, not PJM.

In its Main Brief, PPL attempts to further minimize the need for a current retool study by providing that any short-term delay for the need for the SR500 project will just create some “breathing room” in the construction schedule. PPL M.B. at 70. The OCA addresses this issue in other sections of this Reply Brief, but will add to that discussion here. PPL is asking this Commission to delegate its authority to PPL or PJM to decide when, or even if, this Project is ultimately needed. The OCA submits such an approach is not only unreasonable, it is not consistent with this Commission's regulations or the laws of this Commonwealth.

PPL, as the Applicant here, bears the burden of proving that the SR500 Project is needed to be in service by June 2012, as all of its Application materials and testimonies assert. If the June 2012 date is no longer correct, then PPL would need to amend its Application accordingly, just as it would if some other part of the project changed, for example, the reroute described in Mr. Sparhawk's Supplemental Direct Testimony. PPL St. 3, Supp. PPL's request for this Commission to provide a “blank check” and to let the Applicant fill in the details later is unacceptable. PPL's assertions that the RTEP process will provide the necessary set of checks and balances as to when this project is needed should be rejected. PPL M.B. at 70. It is this Commission that is charged with protecting the interests of Pennsylvania ratepayers and the natural resources of the Commonwealth, not PJM.

e. Conclusion.

The OCA's position has been clear throughout this proceeding. This Commission deserves nothing less than the most current and accurate data in order to reasonably review a request by PPL, or any other utility, to spend \$1.2 billion of the ratepayers' money. The OCA has called for such data from very early on in this matter. The Company has refused to provide same. In light of the foregoing discussions, and the more thorough discussion in the OCA's Main Brief, no other reasonable conclusion can be reached in this matter -- the Application cannot be approved on this record. Only a current retool can accurately provide the current level of need for these significant transmission system upgrades. PPL's assertions that the necessary updates will be provided at a later date are simply not sufficient.

2. Need For the Proposed Lackawanna Substation.

N.A.

C. Siting.

1. Route Selection.

N.A.

2. Safety.

a. Introduction.

The OCA provided a complete discussion of the Company's decision to route this 500kV transmission line through Saw Creek Estates (SCE) and the safety concerns that such decision raised in its Main Brief. OCA M.B. at 72-80. The following will add to that discussion, specifically to address issues raised in PPL's Main Brief.

As PPL states that safety is a priority, then PPL must reassess the decision to build the SR500 project through SCE. PPL recognizes that fewer people being in the area of

construction equals less of a risk. PPL admits that all construction projects have risks. PPL recognizes the fact that there are numerous homes located in SCE that are within the “fall zone” of the proposed 190-foot towers. Yet, PPL forges ahead with its proposal to build a 500kV transmission line through a tightly-packed community of 10,000 people. PPL has, however, agreed to relocate the SR500 Project around a mining operation, apparently based on the possible safety concerns for damage to the utility’s infrastructure. The OCA submits that such safety concerns should relate to the people of SCE as well.

b. PPL’s Stated Concerns for the Safety of People are Inconsistent.

In its Main Brief, PPL discusses how the proposed construction of the SR500 Project will be accomplished in the Delaware Water Gap National Recreation Area (DEWA). PPL M.B. at 92-94. The Company proposes to only build in the DEWA during the winter months, “when recreational river traffic is low.” PPL M.B. at 93. This proposed schedule is to “ensure the safety of the public during construction.” Id. PPL goes on to describe how it is going to manage the river traffic, in the winter, in order to ensure safety. Id. PPL’s plans for construction within SCE, however, seem to totally ignore the basic premise of their plan to build in the DEWA – less people equal less of a risk.

As PPL readily admits, all construction projects have risks. PPL M.B. at 92. In the DEWA, as PPL proposes, some of these risks can indeed be mitigated by choosing to build in the off season and then concentrating on controlling the reduced number of people that would be in the area of construction. In SCE, however, there is no off season. People live in SCE year-round. Does PPL plan to evacuate homes that are next to the ROW during construction? Only during blasting near those homes? Only during those times when cranes may be in use? As is readily apparent, PPL’s detailed plans for controlling the movement of a few river travelers in

the DEWA, in wide-open spaces, do not translate very well to how it is going to control the movement of the 10,000 residents of SCE within very tight quarters.

The OCA agrees with PPL's implied premise that fewer people equal less of a risk. It is simply common sense. The OCA submits that the Company must reevaluate its plans for SCE, and instead, route the SR500 project, if approved, in an area where PPL can safely manage the construction of this project.

c. The Safety of Transmission Structures.

In its Main Brief, PPL discusses the fact that many of the public input hearing witnesses questioned the safety of having homes within the fall zones of transmission towers. PPL M.B. at 94. PPL goes on to discuss the tubular steel structures proposed for use in SCE, and how such structures are safe. PPL M.B. at 94-97. To be perfectly clear on the OCA's position with regard to the safety of tubular steel structures, it is not the OCA's position that these type of transmission structures are unsafe. The OCA is making the point that building a 190 foot tall structure in someone's back yard carries certain risks, and such risks should be fairly represented. Transmission towers do fail, even the tubular steel variety, as the record indicates. Tr. at 1056-1057; OCA Cross Exhibit 10.

PPL witness Hogan was questioned about a document describing the ice storm of 1998 that affected parts of Canada, New York and the New England area, as follows:

Q Now, turning to page 2 of the document, would you also agree that the second bullet point from the top provides that 130 transmission towers were destroyed as a result of this ice storm?

A That is what it says, yes.

Tr. at 1048-1049; OCA Cross Exhibit 9. Mr. Hogan was also questioned about failures of transmission towers related to Hurricane Wilma in 2006. Tr. at 1051. The relevant passage from the KEMA⁶ investigation was read into the record by Mr. Hogan, as follows:

A "only one 500kV line experienced structural damage during Wilma. This particular line had 30 tower failures. The major contributing factor for these tower failures was the installation guidelines for manual tightening of crossbrace bolts per industry standard practice, which is insufficient and led to the loosening of the crossbrace bolts in several locations."

Tr. at 1051; OCA Cross Exhibit 10. To be clear, the 130 transmission towers that failed during the ice storm of 1998 were the steel lattice type, and not the tubular steel structures specifically proposed for use in SCE. All transmission infrastructure, however, is prone to possible damage from ice accumulation, as PPL's Application provides. See Application Book 2 of 3, Appendix E-7 at p. 2. The 30 tower failures that occurred during Hurricane Wilma were the tubular steel variety, as PPL witness Hogan confirmed. Tr. at 1056-1057.⁷

As the record shows, transmission structures, like all man-made structures sometimes yield to the forces of nature. The OCA is not attempting to show that all transmission structures are unsafe, nor that the tubular steel variety are unsafe, just that these structures do occasionally fail and, in the event of such a failure in SCE, the structures are proposed to be very close to a number of homes along the ROW. And, on the issue of constructing towers close enough to a residences to place them within the fall zone, the OCA agrees with PPL that there is no "prohibition" against doing this. The OCA would note, however, the fact that because such situations exist in "congested, urban areas" hardly justifies doing the same thing in SCE when

⁶ Mr. Hogan briefly explained that KEMA is a consulting firm that does analytical work. Tr. at 1055.

⁷ The OCA would note the error in PPL's Main Brief, wherein the statement "Specifically, OCA was unable to identify any instance in which a tubular steel transmission structure had failed" is found. PPL M.B. at 98. As the cross examination of Mr. Hogan and OCA Cross Exhibit 10 show, 30 such tubular steel transmission structures did indeed fail during the 2006 Hurricane Wilma event.

other options are possible. PPL M.B. at 95. The OCA would also note that just because there is no prohibition against building 190 foot towers in peoples' back yards does not mean that it is a reasonable proposal to do so.

d. The Applicant, PPL, Bears the Burden of Choosing a Reasonable Route, Not the OCA.

PPL argues that it has the authority to propose the location of the SR500 line and that the OCA's suggestion that PPL must reroute the line around SCE should be rejected because OCA "proposed no specific route for the relocation." PPL M.B. at 19, 98. While PPL does have limited authority to propose new HV transmission line corridors, PPL also has the obligation to establish reasonable corridor routes. PPL has not met this obligation in the SCE area and the OCA has no obligation to assist PPL in this regard. The PPL Main Brief recognizes PPL's obligations and also implicitly recognizes how the Commission will review its authority to propose HV transmission corridors in this proceeding.

In support of its routing authority, PPL argues that it may locate the line where it chooses and that its choice cannot be reviewed other than under a wanton, arbitrary or capricious standard. PPL M.B. at 19. This is error. PPL fails to recognize that the Commission's siting regulations have superseded appellate siting precedent in most regards. PPL's arguments also implicitly acknowledge that these appellate standards are not applicable to this proceeding. PPL M.B. at 16-17; 71-92. Any suggestion that the Commission will apply an arbitrary, capricious, or wanton standard to evaluate the proposed route under 52 Pa. Code § 57.71 *et seq.* is neither credible nor rational since PPL's proposed standard is applicable to reviewing discretionary decision making -- not to the factual demonstrations that PPL must show to secure Commission approval. *See* Section IV.A., above.

The cases PPL offers do, however, provide instruction on the extent of PPL's obligations under state-conferred siting authority. The OCA acknowledges that PPL has the authority to propose a new HV transmission line corridor from among any number of acceptable locations, but that is as far as state-conferred siting authority extends for the purposes of this proceeding. There can be no serious argument that the Commission will review the PPL Application under PPL's proposed siting standard of review, or that other parties have an obligation to propose alternate routes for PPL. As PPL's Main Brief points out, a transmission line proposal "is a matter for the utility in the first instance." PPL M.B. at 19. The question in this proceeding is not whether PPL has a right to choose, but rather, whether PPL has substantiated its choice in terms of location, timing, need, and other matters under all applicable requirements. This is a distinction with a difference and it is a distinction that PPL fails to make. This is why the OCA has not offered alternative routes to PPL, as PPL notes at page 98 of its Main Brief. The OCA recognizes that proposing a legally compliant route is PPL's obligation alone. To the extent that the SR500 line does not meet the required standards, and PPL wishes to continue to pursue the project, no other party is obligated to develop PPL's proposal for it.

e. Conclusion.

The OCA submits that PPL must recognize the legitimate safety issues involved with proposed construction on this scale in an area such as SCE. The OCA is not saying that PPL's proposal as to SCE is impossible. The OCA is suggesting that building transmission infrastructure of the type proposed here would be more safely accomplished in an area where there were less people and more space than are present in the existing ROWs in SCE.

3. Health – Electric and Magnetic Fields.

N.A.

4. Environmental Impacts.
N.A.
5. Protection of Natural Resources.
N.A.
 - a. Rare, Threatened and Endangered Species.
 - b. Wetlands.
 - c. Tree Trimming.
 - d. Other Natural Recourses.
6. Reroutes to Avoid Saw Creek.

The OCA has provided a complete discussion of this issue in its Main Brief. OCA M.B. at 72-80. In addition, the OCA has supplied the majority of its arguments as to why SCE should be avoided in Section IV. C. 2. of this Reply Brief, under the heading “Safety.” The following will add to those discussions, specifically addressing PPL’s comments in this section of its Main Brief.

PPL alleges that there is no route available to avoid SCE that is “preferable” to the existing ROW that goes through SCE. PPL M.B. at 140. The OCA generally supports maximizing the use of existing ROWs for transmission expansion projects. The situation at SCE, however, presents an exception. The OCA submits that it is in the best interest of all parties for PPL to route the SR500 project, if approved, around SCE. To that end, it does appear that the possible reroute to the east of SCE may be possible. PPL M.B. at 141-143.

As to this eastern reroute, PPL contends there are numerous difficulties. Id. The preliminary issues that PPL raises involve new land acquisition, increased cost, and possible aesthetic impacts. PPL M.B. at 141-142. PPL concludes that this reroute does not eliminate any

of the impacts of the line, but merely moves them somewhere else. PPL M.B. at 142. From the facts as presented, the OCA disagrees with PPL's conclusion.

As explained in detail within the Safety section of this Reply Brief, the "impacts" that the OCA is concerned about in SCE, in part, relate to the fact that PPL is proposing to build this Project, including its 190 foot tall towers, in very close proximity to a number of homes in SCE. This proposal raises some serious safety concerns, and should give this Commission pause before authorizing such an endeavor. Conversely, the alleged difficulties with this potential eastern route do not appear to involve any close contact with residential housing. That fact alone should be just cause for a further, detailed evaluation of this route.

PPL also discussed the challenges involved with finding a suitable reentry point into SCE, if this eastern alternative were used. PPL M.B. at 143. The OCA submits it would be reasonable to assume that if PPL were willing to seriously consider this eastern alternative, some mutually agreeable point of reentry could be worked out with SCE perhaps along the lines of the alternative routes that SCE proposed. PPL M.B. at 143-145.

If the Commission approves the SR500 Project, the OCA submits that a reroute around SCE is necessary, and from the record evidence, it appears that it is possible.⁸ Absent such an accommodation, however, the Commission should not authorize PPL to construct the SR500 Project through SCE as the Company proposed.

7. Real Estate Values.

N.A.

⁸ The OCA understands that no matter what happens as a result of this proceeding, the existing 230kV transmission line through SCE will need to be rebuilt. The OCA will address that issue where PPL addressed that issue, under Section IV. C. 10. of this Reply Brief, "Viewshed."

8. Undergrounding.

a. Introduction.

The OCA is not advocating for the underground installation of any 500kV transmission lines in this proceeding. As the Company's Main Brief indicates, however, numerous witnesses from the public input hearings in this matter questioned why the proposed transmission lines through SCE could not be buried. PPL M.B. at 152-153. The OCA submits that this is a fair question. Because the Company's contracted-for-study and its other evidence in this proceeding tend to cast a negative light on the possible undergrounding of transmission lines as a general matter, the OCA provides this brief response in the interest of a more complete and balanced record.

b. Undergrounding Pros and Cons.

In its Main Brief, PPL listed a number of reasons why undergrounding the portion of the proposed SR500 line through SCE is not practical. PPL M.B. at 152-153. Among other reasons, the Company cites substantially increased costs and possible reliability issues as compared to overhead lines. Id. In addition, Company witness Busby testified to the lack of experience that PPL has with underground lines and that, essentially, lines of this nature are an unknown quantity. PPL M.B. at 153; Tr. at 1035-1036. In his Direct Testimony, Mr. Lanzalotta commented on the cost estimates for undergrounding this particular line, as follows:

In response to OCA-1-55, the Company provided a study of the feasibility of undergrounding the proposed S/R line that is proposed to run through SCE. The study concluded that this was not feasible due to cost and technological considerations. However, the costs for the underground were increased by the Company's insistence that any underground segments must have the same capacity as the overhead conductors would have. Underground conductors typically have less capacity per conductor than overhead conductors, so the underground configurations priced out in this study provided for multiple sets of conductors.

This tended to increase the price of the underground alternative. No study was performed to see if a lower-rated underground installation would have addressed the needs the Company asserts justify the S/R line.

OCA St. 1 at 18. As Mr. Lanzalotta testified, an underground project that incorporated slightly lower transfer capabilities would have been more cost-effective, and could have potentially addressed the same set of contingencies that the Company is relying on to justify the need for this Project. Upon questioning by Judge Colwell, Mr. Lanzalotta further explained that underground facilities are usually scaled slightly smaller in capacity than their above-ground counterparts. Tr. at 1824-1826. The OCA also conducted cross examination of some of the PPL witnesses in an attempt to gain more information on the undergrounding issue.

As to the issues of lack of experience with undergrounding and the reliability of underground lines in general, PPL witness Busby was asked some general questions, as follows:

Q ... if no utility ever decides to build a 500kV underground duct type system as you've just described, PPL nor any other utility will ever have any experience with this type of a system, will they?

A Correct.

...

Q So Mr. Busby, in your opinion, considering PPL has essentially no experience with XLPE, would it be of value to the company to have such experience, at least in some limited basis?

A Not-- not as a part of the large 140 mile transmission line. If it was a very short line somewhere, yes. But not in this instance.

Tr. at 1035-1036.⁹ As Mr. Busby testified, gaining some experience with XLPE conductors for undergrounding transmission lines is a reasonable idea for PPL to pursue. Mr. Busby was also questioned on the experience that utilities do have with underground electric wires, as follows:

Q So in answer to my question, the experience that utility companies have with underground distribution lines may go back several decades. Is that true?

A Yes.

⁹ XLPE (cross-linked polyethylene) is the newest type of conductor that can be used for undergrounding extra-high-voltage transmission lines. Tr. at 1035.

Q And based on that experience and on what we've seen with the reliability of these underground lines, would you say that they're basically as reliable as their overhead counterparts were 30, 40 years ago?

A Yes.

Tr. at 1037. As Mr. Busby verified during cross examination, it was not that long ago in this country that distribution lines were all constructed overhead. Tr. at 1036-1037. And yet, given adequate time and experience with undergrounding distribution lines, as Mr. Busby verified, reliability is no longer a major issue. The OCA also questioned PPL witnesses about possible cost savings that underground lines may provide, and yet, to the OCA's knowledge, were not a part of the Company's analysis in this matter.

PPL witness Busby was asked about the obvious advantages to having power lines underground, as follows:

Q Let me just ask you in general as to reliability... Are underground lines much more immune, in your opinion, to extreme weather events like hurricanes, tornados, ice storms?

A Yes.

...

Q Now Mr. Busby, I think we've all heard many, many news stories about the efforts that utilities go through to restore power in areas that are hit by storms, downed trees, wires, power outages, sometimes the power stays off for days or maybe even weeks if we're not fortunate. Now, that type of an event -- I mean, wouldn't you agree, Mr. Busby, that it's not only extremely costly for the utility but also for the residential customers and the businesses that have to be without power for extended periods of time?

A Yes.

Q Mr. Busby, in your experience, how many times have you heard in the news that a natural gas pipeline, which is of course underground, was damaged by some type of a weather event?

A Not that I'm aware.

Tr. at 1039, 1041. PPL witness Hogan¹⁰ was also questioned about the possible advantages of having an underground power line, as follows:

Q Now Mr. Hogan, the 345 kV underground project we're just discussing in Connecticut, in your opinion would that type of a project be subject to the same level of damages that we talked about earlier in relation to the 1998 ice storm or to the more recent Hurricane Wilma that we just finished discussing?

A It would not be subject to those type of loads but there are other risks that become involved with underground projects.

Tr. at 1053. As these witnesses testified during cross examination, there may be some potential advantages to undergrounding that were not previously discussed on this record. In response to questions by Judge Colwell, OCA witness Lanzalotta discussed another possible benefit of undergrounding:

Q. Knowing what you know about siting and constructing a major transmission project, do you anticipate that that will ever get easier than it is now?

A. I've seen a trend, although it's not an overwhelming trend, but there is a trend to putting more electric lines underground. Now, if this project were to be an underground project, I suspect that siting would be easier. It's been my experience that there is less opposition to the siting of an underground facility than to an overhead facility.

As technology changes over time, the cost differential, historically, I've heard, you know, a lot of the 10 to 1 ratio used between overhead and underground costs. I think, today, the trend is that ratio has been coming down, although underground is still considerably more expensive than overhead. But if the trend to more underground facilities continues, I would expect siting to become perhaps a bit easier.

Construction, of course, of an underground facility is probably considerably more difficult than constructing an overhead facility.

So, you get easier in some respects and more difficult in others.

Tr. at 1827-1828.

c. Conclusion.

¹⁰ Mr. Hogan was the project manager at one point for the 24-mile-long, 345kV underground transmission line project that was put into service last year in Connecticut, a first of its kind project in the United States. Tr. at 1051-1053.

In today's world, we expect utility infrastructure to be put underground wherever and whenever possible. The significant exception, however, are extra-high-voltage transmission lines, which only seem to be placed underground as a type of last resort. The continued developments on this issue would appear to indicate that this option deserves more serious consideration. As Mr. Lanzalotta testified, siting concerns, which seem to dominate these types of proceedings, may be lessened if a more proactive approach was taken in regards to advancing undergrounding technologies.

9. Delaware River National Recreation Area.

a. Introduction.

In its Main Brief, the OCA raised legal and practical concerns relating to PPL's choice to route the SR500 line through the Delaware Water Gap National Recreation Area (DEWA). OCA M.B. at 80-95. Chief among these concerns was, as PPL acknowledges, that PPL has not obtained required federal permits to construct the SR500 line through the DEWA. Id.; PPL Electric St. No. 1-RJ at 6-7; PPL M.B. at 130. The OCA also discussed how DEWA issues are particularly significant because this is where the Pennsylvania and New Jersey segments of the SR500 line will connect, and that a failure or significant modification here may trigger a regulatory failure in both states. OCA M.B. at 81. In response to DEWA permitting issues, the OCA recommended that any approval by this Commission should contain the condition that no actual construction begins until all federal permitting issues are resolved. OCA M.B. at 95. This condition is reasonable in that a failure, or extended delay, in obtaining required federal permits will cause Pennsylvania residents and ratepayers to bear unreasonable environmental and economic costs for a transmission line that cannot possibly reach its intended

destination. Id. The OCA will show that its recommendation is reasonable and practical and is in the public interest.

b. PPL Acknowledges That it Must Obtain Multiple Federal Permits Before Construction May Proceed.

In its Main Brief, PPL acknowledges that beginning construction prior to the receipt of required federal permits would be ill advised.

Significantly, no portion of the S-R Transmission Line can be constructed until PPL Electric has satisfied the concerns of all of those entities listed above with permitting authority related to that portion of the line. Such permits cover a broad range of issues and bring to bear the specialized expertise of many governmental agencies with responsibility for environmental matters.

PPL M.B. at 130. From this, it would appear that PPL and the OCA are in general agreement on the basis for the OCA's recommended condition.

In its Main Brief, the OCA noted that the Application provides that multiple federal agencies have jurisdiction over SR500 line permitting issues, and the PPL Main Brief confirms this by providing a list of these agencies. OCA M.B. at 94, fn 14; PPL M.B. at 129-130. What is unclear from PPL's Application and Main Brief is 1) the number of required permits, 2) the timeframe under which approval could reasonably be obtained, 3) whether approval can reasonably be expected, 4) the segments of the line to which each permit applies, and 5) whether the permits apply to the entire length of the line. When viewed in conjunction with the PPL testimony that it seeks permission to begin immediate construction upon Commission approval, (PPL Electric St. No. 1-RJ at 6-7), the PPL Main Brief raises a serious issue not explored by PPL in this proceeding: whether PPL proposes to construct a disjointed patchwork transmission line in the hope that all permits will eventually be forthcoming and that it can connect-the-dots by

June 2012. Such a speculative proposal would subject Pennsylvania residents and consumers to substantial and unnecessary environmental and economic costs.

PPL's discussion on this point is also a tacit acknowledgement that refraining from actual construction until all necessary permits are in place is the prudent course of action. This is particularly true given the scope of the SR500 line, and the apparent breadth of the permits that PPL describes. For these reasons, the condition that PPL refrain from any actual construction of the line prior to obtaining all necessary permits is prudent, reasonable, and in the public interest.

c. Matters Concerning the Delaware Water Gap National Recreation Area are Relevant to this Proceeding and Support the OCA Recommendation.

While PPL begins its discussion of DEWA issues by distancing its Application from required federal substantive review, PPL nevertheless acknowledges that matters concerning the DEWA are relevant to Commission approval of its Application and should be considered here. PPL M.B. at 155-161. PPL begins by arguing that:

The National Park Service has its own permitting process for electric transmission lines. Its specific concerns will be addressed as part of that process. Moreover, the National Park Service is remaining neutral on siting issues before this Commission. Therefore, its concerns need not be resolved as part of the siting process before the Commission.

PPL M.B. at 155-56 (citations omitted). PPL is correct that this Commission cannot resolve its substantive permitting issues with the DEWA. Nevertheless, PPL is incorrect to imply that the Commission should, or may, disregard DEWA issues.

- i. PPL Acknowledges that the Commission Must Consider DEWA Issues Before it May Issue Findings Under its Regulations.

PPL's argument that the SR500 line will have marginal or minimal environmental impact in the DEWA should be given little weight because the NEPA review process will identify how, and to what degree, the DEWA may be harmed by the SR500 line. PPL M.B at 157. As PPL points out, the National Park Service (NPS) is its own master in this regard, and PPL's testimony is not informed by the required NEPA review.

In its Main Brief, PPL argues that its actual work in the DEWA will be temporary in nature, that restoration work will take place in the spring of the year, and that this will mitigate some of the impact of its construction efforts. PPL M.B. at 156. PPL states that it will need to clear perhaps an additional 25 feet on either side of the existing right-of-way. PPL M.B. at 157. PPL also argues that the woodland succession process will begin apace following construction. PPL M.B. at 159.

NPS scientists and administrators explained at the DEWA site visit, however, that PPL's proposal would encompass a "logging operation" within the DEWA, and in particular would require a 350 foot staging area along the length of the proposed line. Tr. at 399, 404. NPS scientists also discussed how PPL's proposal would remove mature trees from road and line easements damaging what is one of the few relatively intact forests in the park and in the region. Tr. at 391-394. Regarding succession, NPS scientists explained how PPL's proposal would invite non-native species and would be a set-back to the progress they have achieved in these areas of the park thus far. Tr. at 390-393. While the removal of woodland and construction of the SR500 line within the DEWA would no doubt occur quickly, its evidence will survive for

many generations. PPL is incorrect to describe its environmental impact as short-lived, as it is not fairly described as temporary or easily mitigated in any fashion.¹¹

The PPL Main Brief also argues that the roads that it seeks to build will be limited in scope, particularly the proposed road over the Arnott Fen area of the DEWA. PPL M.B. at 157. The area surrounding the Arnott Fen that would be under the influence of the SR500 line is an imperiled wetland of worldwide importance that contains six rare plant species and one State endangered species found only at that site. Tr. at 384-86. The width of the fen is crossed by a low earth-embankment road of generally less than twelve feet wide. Tr. at 390. PPL claims that it will not widen the embankment as a part of its construction efforts. PPL M.B. at 158. PPL claims that if it does not receive permission to take construction machinery over the Arnott Fen, however, it *may* be possible to alter the support structures for delivery by air. PPL M.B. at 158. That is, PPL is unsure if this can be accomplished if it does not obtain the DEWA access road permits it seeks. PPL's argument serves to underscore the requirement that PPL obtain all necessary permits prior to beginning construction of this line.

PPL also argues that it will minimize the effects that the SR500 line may have on protected bald eagles and other birds within the DEWA. PPL M.B. at 159-161. The degree of minimization remains unknown because the matter has not yet received appropriate study and evaluation. NPS biologist Mr. Ambler testified that the SR500 line raises significant concerns for bald eagles in the DEWA, particularly that the line will form an aerial fence, well above tree line, that separates the eagle's nesting and feeding areas. Tr. at 413, 424-27. Again, these are

¹¹ Federal courts have described environmental damage of long duration as irreparable. Nat'l Audubon Soc'y v. Dep't of the Navy, 422 F.3d 174, 201 (4th Cir. N.C. 2005) *citing* S.C. Dep't of Wildlife & Marine Res. v. Marsh, 866 F.2d 97, 100 (4th Cir. 1989) *quoting* Amoco Prod. Co. v. Vill. of Gambell, 480 U.S. 531, 545, 94 L. Ed. 2d 542, 107 S. Ct. 1396 (1987).

serious concerns that PPL must address before it can obtain required permits. Construction of the adjoining lines in Pennsylvania and New Jersey should not begin until this issue is resolved.

- ii. The National Park Service Will Issue a Determination on the PPL Permit Applications Before It, but has Raised Serious Concerns Regarding the Siting of This Line on Federal Lands.

In its Main Brief, PPL argues that the “National Park Service is remaining neutral on siting issues before this Commission.” PPL M.B. at 155-156. The OCA acknowledges that the NPS is not a party to this proceeding. Indeed, in practical terms, the NPS cannot be a party because it too is a decision maker under federal law, and it has not yet conducted its analysis in the matter. At the DEWA site visit, DEWA Superintendent Donahue stated as follows:

Now, because I do have a role in the decision-making and the recommendation regarding the proposal, I will not speak about the proposal in a negative or positive fashion.

Tr. at 376. Indeed, Mr. Donahue will participate in a decision that will either green light, condition, or foreclose construction of the SR500 line as proposed. Superintendent Donahue’s statement reflects prudent restraint as a federal decision-maker. Here, he expresses an unwillingness to pre-judge the PPL application without acquiring required and necessary information -- in particular, the information and analysis required by NEPA in the Environmental Impact Statement he described in his February 27, 2009 letter to the Commission. OCA M.B. at 89; OCA Cross Ex. No. 3 at 2. Indeed, this is no different from an ALJ or Commissioner refraining from publicly announcing a stance on a pending matter.

Notwithstanding this position, however, as the OCA described briefly above, and at length in its Main Brief, NPS scientists raised serious concerns regarding the impact of this line on federal lands. OCA M.B. at 80-95. The Commission should consider the DEWA issues as a part of its review here, and must ensure that PPL has resolved these issues and has obtained

the necessary federal permits before actual construction of the Pennsylvania side of this line is begun.

Despite all of those expressed concerns, PPL requests Commission permission to begin immediate construction of the portion of the SR500 line from Wallenpaupack to Bushkill within Pike County. PPL Electric St. No. 1-RJ at 6-7. This segment of the SR500 line, however, appears to include DEWA lands. PPL provided topographical maps within its Exhibit C showing the route that the proposed line would take. Topographical Map 19 of 32 shows that the DEWA occupies the southern tip of the line section PPL proposes to build beginning in the first quarter of 2010. PPL Exhibit C, Topographical Map 19 of 32. This evidence gives the impression that PPL seeks Commission approval to build the SR500 line into the DEWA, at PPL's preferred location, while the NPS is considering whether or not PPL may obtain permits to cross DEWA in the first instance. The OCA explained in its Main Brief how such an approval by the Commission at this time could serve to subvert NEPA requirements, and illustrated how federal courts have approached similar problems. OCA M.B. at 93-95. The Commission should allow the Department of the Interior to conduct the required NEPA review for the SR500 line without undue and unwarranted influence. The Commission's HV transmission line siting regulations provide for no less.

As the OCA explained in its Main Brief, and as PPL explained in its Application, the SR500 line is subject to NEPA considerations. OCA M.B. at 92-93; PPL Application, Appendix E-6. In its Main Brief, the OCA questioned the wisdom of beginning actual construction of the SR500 line prior to the completion of the required NEPA review, and argued that PPL was prevented from doing so under NEPA provisions. OCA M.B. at 92-93.

From the cases presented in the OCA Main Brief, the OCA submits that NEPA restrictions apply in this instance and that the required publications and comment periods make the development of an Environmental Impact Statement (EIS) relatively time consuming. It would not be unreasonable to assume that, in this instance, the process may take upwards of a year or longer. This lends support to the OCA's concerns regarding the premature construction of portions of the SR500 line overall, but particularly PPL's stated plan to begin immediate construction in the area of the DEWA. The Commission should respect the required NEPA process and recognize that PPL asks the Commission for permission to do something that could serve to overturn what NEPA seeks to achieve.

10. Viewshed.

a. Introduction.

In PPL's Main brief, the Company explains that no matter what occurs with the SR500 Project in this proceeding, the existing 230kV transmission line through SCE will need to be rebuilt. PPL M.B. at 162-164. If the SR500 Project is approved, the 230kV line will be rebuilt as part of that Project. If the SR500 Project is not built, or it is routed around SCE as the OCA advocates for, then the existing 230kV line would be rebuilt to today's design standards. These facts are uncontested. The dispute arises where PPL claims that the rebuild of the existing 230kV line, outside of the SR500 Project, would require transmission towers of approximately 140 feet in height. PPL M.B. at 162-164.

b. Alternatives to the Status Quo are Possible.

In his Direct Testimony, OCA witness Lanzalotta discussed the rebuild of the existing 230kV line, as follows:

If the proposed S/L line does not go through SCE, the Company is on record as saying that the existing line needs to be rebuilt due to

age. The Company intends that this rebuild would be as a double-circuit transmission line, which would still be higher than the existing line, and would reportedly average about 140 feet in height. This compares to the existing transmission line towers running through SCE, which have an average height of 83 feet and a maximum height of 94 feet. These transmission line structures would still be taller than half the ROW width. However, this potential double-circuit 230 kV transmission line would still be about 40 feet shorter in height than the Company's 500 kV S/R proposal, and would, therefore, reduce the potential danger to the surrounding homes.

OCA St. 1 at 20-21 (footnote omitted). As Mr. Lanzalotta testified, the Company's plan for a stand-alone rebuild would include towers of approximately 140 feet, but still much smaller than the proposed 190 foot towers for the SR500 project. Importantly, however, Mr. Lanzalotta also went on to describe how the existing 230kV line could be rebuilt in such a way as to minimize the impacts on the surrounding area, as follows:

In addition, if the Company chose to rebuild this line as a single-circuit 230 kV transmission line, the height of that line could be shorter than that of the potential double-circuit 230 kV line, and thereby, less threatening to dwellings located at the edge of the ROW. Even using conventional conductors, a rebuild as a single-circuit 230 kV line will substantially increase circuit capacity. The existing 230 kV conductors are very old and have a thermal capacity of around 700 MVA. Higher capacity 230 kV conductors on the grid have capacities in the 1,200 to 1,300 MVA range, as reflected in the line capacities provided in OCA-7-4. Furthermore, use of new, composite, high-temperature, low-sag conductors ("HTLS") could be used to further increase line capacity and/or reduce tower height. The Company suggested that it might use such technology on the proposed S/R line when it asked FERC to grant it increased incentive rate of return on equity for its potential investment in the S/R line. This is an instance where such technology could be put to use.

OCA St. 1 at 21-22 (footnote omitted). As Mr. Lanzalotta described, there are opportunities to incorporate some new technologies, which could greatly increase the carrying capacity of the line, while at the same time reducing the impacts on the surroundings. In his Surrebuttal

Testimony, Mr. Lanzalotta stated that a newly constructed 230kV line might not need to be substantially higher than the existing line. As stated by Mr. Lanzalotta:

The existing line, which has conductors aligned horizontally, averages about 85 feet in height through Saw Creek. A new, single-circuit, 230 kV line would average 105 feet in height, but would incorporate a vertical alignment for the conductors. A vertical alignment for conductors increases tower height above what is needed for horizontal conductor alignment, since vertical spacing between conductors adds to the tower height. This tower height could be further reduced to something closer to the 85 foot height of the existing 230 kV line with the use of horizontal spacing between conductors, since all the conductors would be at the same height.

OCA St. 1-S at 8 (footnotes omitted). As discussed, there are options available for a stand-alone 230kV rebuild through SCE that may be more suitable for the available ROW through the SCE area. The confirmed need for a rebuild of the existing 230kV line through SCE necessarily involves the discussion of one further issue – the Company’s desire to immediately begin construction.

c. No 500kV Construction Can Start Early.

In its Main Brief, PPL requests permission to start the immediate construction of that section of the line that goes through SCE, the 230kV line running between the Wallenpaupack and Bushkill substations, because that portion of the existing 230kV line is outdated and in need of replacement. PPL M.B. at 180. PPL witness Smith also provided Rebuttal Testimony that construction must start as early as possible in order to meet the required June 2012 timeline for the SR500 project. PPL St. 1-R at 24-27. PPL argues that allowing construction to start immediately on the SCE part of the line is harmless, as that section of line must be replaced no matter what happens with the SR500 project as a whole. PPL M.B. at 180.

PPL is incorrect, at least as to the harmless nature of allowing construction to immediately commence.

Assuming that the Project is approved, and PPL is authorized to start construction immediately on the Wallenpaupack to Bushkill line, PPL would start constructing a 500kV line. The Park Service, however, will not have ruled on PPL's Permit application. *See* OCA M.B. at 80-96; Reply Brief at Section IV.C.9. If the Park Service declines to issue PPL a permit to expand the use of its existing ROW through the DEWA, and PPL cannot come up with an alternative to stay within the 100 foot ROW, then no 500kV line through the DEWA is possible. In that event, the funds expended to construct a 500kV segment in SCE will have been wasted. At the very least, the difference between the 500kV construction and the 230kV construction that would be required in the absence of a National Park permit would have been wasted. The OCA submits that there is no good reason to assume these risks.

The Company has put on testimony throughout this proceeding that discusses the outdated nature of the 230kV line through SCE. PPL witness Keeler testified as to the condition of this line, in part as follows: "the conductor is out of tolerance and cannot handle the mechanical and electrical loads for which it was designed." PPL St. 5-R at 10. Mr. Keeler, however, was asked directly by Judge Colwell at trial to confirm the current state of this line, as follows:

JUDGE COLWELL: okay. And you were asked about page 10, the recent extensive survey of the existing 230kV transmission line. Again, I'm not an engineer so when I hear something that something's out of tolerance and can't handle the loadings for which it was designed, I need you to tell me that this particular line is presently safe for the use that PPL is giving it.

THE WITNESS: Yes, it is.

Tr. at 1080-1081. The OCA is not questioning whether this 230kV line should be updated or not, but the line in question does not appear to be in such dire condition that immediate measures are needed. The OCA submits, however, that if this 230kV line between Wallenpaupack and Bushkill is rebuilt as a stand-alone project, then Mr. Lanzalotta's recommendations on that rebuild should be given due consideration. In any event, for the reasons just discussed, PPL should not be authorized to begin any 500kV construction before all required permits are obtained.

d. Conclusion.

Options may exist for dealing with the transmission upgrades through SCE, whatever those upgrades may ultimately turn out to be. The OCA submits that there is no need for the Commission to issue any authorizations to immediately start construction in the SCE area, especially considering the uncertainty of the National Park permit process.

11. Tourism.

N.A.

12. Construction Issues.

N.A.

13. Project Costs And Rate Recovery.

a. PPL Has Not Demonstrated That The SR500 Alone Will Substantially Reduce Congestion Costs.

PPL asserts that the SR500 line, in conjunction with other major RTEP projects, is expected to reduce congestion costs on the order of \$150 million. PPL M.B. at 41-42, 170, n. 62. On cross-examination, however, PPL witness Herling was asked about a series of interrogatories on the issue of market efficiency analyses associated with the SR500 line. OCA Cross Exh. 14. In each of the interrogatories, PPL was asked to provide specific studies or

analyses associated with the SR500 line alone. Mr. Herling's answers to those interrogatories referred to PJM TEAC presentations that studied all major RTEP transmission upgrades in a consolidated manner, not individually. OCA Cross Exh. 14 at 2. In other words, the exact amount of any savings that may be associated with the SR500 alone is unknown.

On cross-examination, Mr. Herling responded to questions to ascertain whether PJM had studied the SR500 line alone to determine whether, on its own, it would reduce congestion:

Q. ...Do any of the analyses or documentation that you refer to in this answer address the Susquehanna-Roseland line individually?

A. No.

Q. Turning to the next page..., does this response also indicate that you have not developed any annual energy generation by PJM [zones] for the 'with' and 'without' cases for the Susquehanna-Roseland line?

A. We did not develop an annual energy generation by zone table for the 'with' and 'without' cases for Susquehanna-Roseland.

Q. And turning to the next page, ...we again asked for analysis and documentation of the persistent congestion that the proposed Susquehanna-Roseland line would relieve. Is that a fair paraphrase?

A. Yes.

Q. And again, your answer to this contains no reference to any report that studies the Susquehanna-Roseland line individually, does it?

A. That's correct.

Q. Mr. Herling, is it possible to do a thorough prospective analysis of the Susquehanna-Roseland line without a study of the benefits of that line individually?

A. Well, PJM did not do a cost benefit analysis for the Susquehanna-Roseland line. It's been approved by the PJM board as a reliability upgrade, not as a market upgrade. And therefore, no cost benefit analysis is required in our planning process.

Tr. at 1301-02. Counsel for the OCA went on to ask Mr. Herling whether he was aware that Chairman Cawley had issued a Statement in the TrAILCo case that expressed the importance of cost-benefit analyses for proposed transmission lines, as follows:

In Allegheny Energy, Inc., et al., 116 FERC ¶ 61,058, Exelon Corporation argues that, before any cost recovery mechanism goes into effect, either FERC or PJM should perform a comprehensive cost-benefit analysis of the proposed project with the involvement of stakeholders, including state commissions.

We should openly acknowledge that these large transmission projects are built not only for reliability benefits, but also to resolve regional congestion constraints. We should provide appropriate evidentiary support regarding benefits and costs, and seek to assign an appropriate share of costs to beneficiaries. In this manner, the public utility commissions in PJM can properly assess the most cost-effective backbone transmission projects among various alternatives going forward, and allocate costs fairly.

TrAILCo Order, Statement of Chairman James H. Cawley, at 1-2 (emphasis added). Mr. Herling responded that he was “not aware of it,” but went on to assert that such an analysis was “not relevant to our planning process as it is defined in the PJM operating agreement.” Tr. at 1302.¹²

Indeed, Vice Chairman Christy noted the importance of this Commission studying the costs versus the benefits of the line to Pennsylvania ratepayers in the TrAILCo case:

As a PUC Commissioner, balancing the interests of the public with that of our utilities is my primary responsibility. It is clear that customers in western Pennsylvania will receive little in return for the siting of these lines in their back yards except upward pressure on the price they will pay for generation and transmission. Only the stockholders, generation owners and perhaps customers in eastern PJM will benefit. I can not support a project that imposes

¹² PPL argues that “the implication of the cross-examination questions was that an economic cost-benefit analysis was prerequisite for Commission approval of the siting of a high voltage line” and that “that implication is not correct.” PPL M.B. at 170, n. 73. It should be noted that OCA counsel specifically mentioned that Chairman Cawley was “calling for a cost-benefit analysis in the context of cost allocation for major projects such as this.” Tr. at 1303. Nonetheless, the suggestion by Chairman Cawley that specific cost analyses would benefit the state regulatory process in general, in that it would allow for more meaningful comparisons among various projects, is clear from the quote included above.

all of the costs and none of the benefits on one segment of the public.

TrAILCo Order, Docket No. A-110172, Dissenting Statement of Tyrone J. Christy, November 13, 2008, at 6. In the Recommended Decision, the ALJs too had rejected TrAILCo’s argument that a “cost comparison analysis” of alternatives was not required. TrAILCo R.D. at 149-51.

Therefore, while a cost-benefit analysis may not be relevant to the PJM transmission planning process, it simply defies common sense to argue that such an analysis is not critical in the context of this Commission’s determination on an application for permission to construct a \$1.2 billion project. No meaningful comparison of available transmission and non-transmission alternatives is possible without such a study. As such, the Company’s reliance on a possible reduction in congestion costs as additional support for construction of the SR500 Line must be disregarded.

14. Other Economic Impacts Of The Proposed Line.

N.A.

D. Eminent Domain.

N.A.

E. Zoning Exemption.

N.A.

F. Other Relevant Issues.

N.A.

IV. CONCLUSION

Applicant PPL Electric Utilities Corporation has failed to meet its burden of proving that its proposed Susquehanna-Roseland 500 kV facility is necessary and proper for the accommodation, convenience and safety of the public, pursuant to the Public Utility Code and the Commission's Regulations.

The Office of Consumer Advocate submits that the Commission cannot approve the instant Application on this evidentiary record; rather, the Commission must either deny the Application outright or, in the alternative, request that PPL (1) further waive its right to invoke FERC transmission siting authority if a final decision is not made by this Commission within one year of PPL's Application filing date, and (2) submit a current retool analysis incorporating an updated peak load forecast, the results of the 2009 RPM auction and peak load reductions resulting from Pennsylvania Act 129 and the New Jersey Energy Master Plan.

If, upon further consideration of the updated analysis, the Commission determines that the proposed Susquehanna-Roseland facility is needed to serve the public pursuant to the standards of the Public Utility Code and pertinent regulations, the Commission should require, as a condition of commencing construction of the proposed line, that PPL:

(1) Develop a reroute of the proposed Susquehanna-Roseland line to avoid the Saw Creek Estates Community, and

(2) Demonstrate that it has obtained all permits required to construct and operate the proposed Susquehanna-Roseland line, including those required by federal law and regulations to route the line through the Delaware Water Gap National Recreation Area, prior to commencing construction of any portion of the line.

Respectfully Submitted,



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CERTIFICATE OF SERVICE

Applications 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 : Docket Nos. A-2009-2082652, *et al.*
Portion of the Proposed Susquehanna-Roseland :
500 kV Transmission Line in Portions of :
Lackawanna, Luzerne, Monroe, Pike and Wayne :
Counties, Pennsylvania :

I hereby certify that I have this day served a true copy of the foregoing documents, the Reply Brief of the Office of Consumer Advocate, upon parties of record in this proceeding in accordance with the requirements of 52 Pa. Code Section 1.54 (relating to service by a participant), in the manner and upon the persons listed below:

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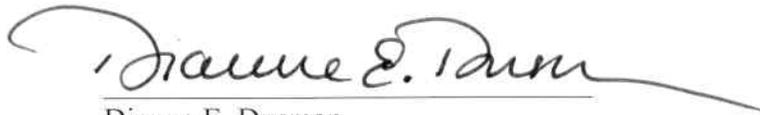
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