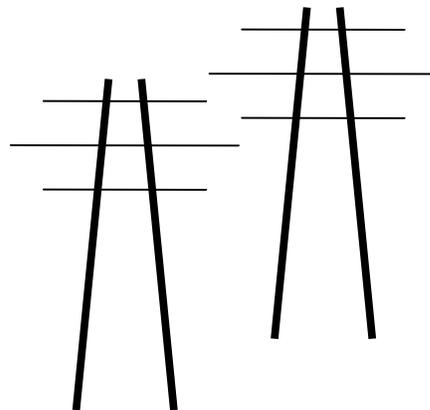


Legalelectric, Inc.

Carol Overland Attorney at Law, MN #254617
Energy Consultant—Transmission, Power Plants, Nuclear Waste
overland@legalelectric.org

P. O. Box 176
Red Wing, Minnesota 55066
612.227.8638

P.O. Box 69
Port Penn, Delaware 19731
302.834.3466



March 5, 2010

John J. Donahue, Superintendent
Delaware Water Gap National Recreation Area
NPS Offices
Bushkill, PA 18324

Susquehanna-Roseland EIS Scoping Comments
National Park Service
Attention: DEWA PPL
EIS Planning Team
Denver Service Center – Planning Division
P.O. Box 25287
Denver, CO 80225-0287

Filed Electronically

RE: Stop the Lines - Susquehanna-Roseland EIS Scoping Comments

Dear Mr. Donahue, et al. :

These comments are submitted on behalf of Stop the Lines. Stop the Lines also adopts, as if fully related here, the Comments submitted by the Eastern Environmental Law Center. Thank you for the opportunity to comment on the EIS scoping for the Susquehanna-Roseland transmission project.

SCOPING COMMENTS

References to page numbers are references to the NPS Internal Scoping Meeting Report.

- Boundary of study area – should include Picatinny Arsenal. As stated in the Internal Scoping Report, impacts don't observe jurisdictional boundaries, and the study area is likely to be expanded. It should be. Impacts of transmission routing through Picatinny Arsenal can have a material impact on DWG.
- Different layers of study area may be appropriate for differing types of impacts.

- This NPS EIS should include an iterative review and incorporation of the environmental review underway at Picatinny Arsenal, including, but not limited applicable requirements of 27 C.F.R. § 555.218, subp. K as it relates to ensuring that explosives are properly stored when in proximity to inhabited buildings, public highways, passenger railways, and also to the separation between magazines that store such explosives.
- The map showing the park, p.3, should also reflect the study area, and the study area map on p. 7 should include highways and landmarks to be more clearly defined. One complete map or the same map repeated would suffice.
- The EIS must address with specificity the reasons the right of way would be expanded, i.e., discussion of concerns of safety, EMF, encroachment, etc., and whether specific concerns can be mitigated by expanded RoW. (p. 2)
- The EIS must address physical area to be added for new access roads and rehab and widening of existing roads, and produce close and long range photo simulations of impacts. (p. 2)
- The stated purpose (p. 2) should not be the utilities claim, but instead the purpose as found in the PJM 2007 RTEP, the basis for this project's proposal:

Critical RTEP Issues and Upgrades

PJM continues to address a number of issues with a bearing on reliability in Pennsylvania and the regional transmission expansion plans required to maintain it:

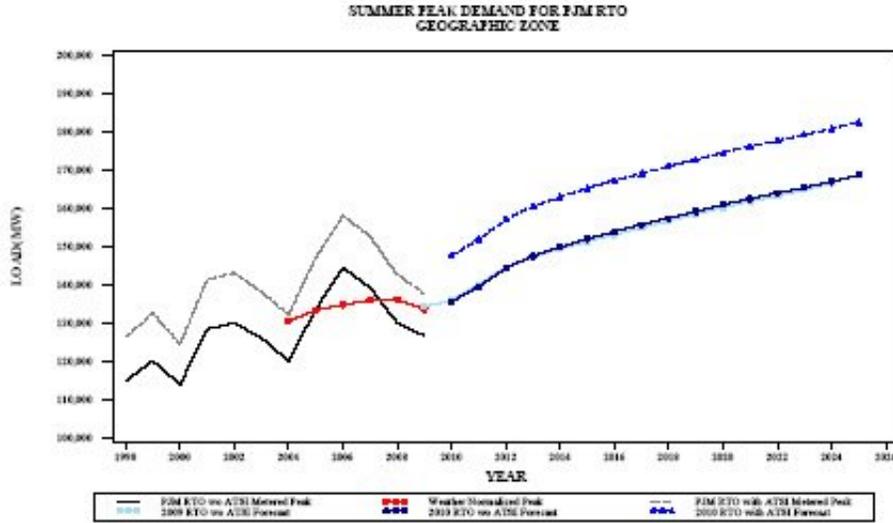
• **Increasing power transfers through Pennsylvania to feed eastern Mid-Atlantic PJM load centers** including those in Pennsylvania are expected to cause overloads beginning in 2016 on key circuits in Pennsylvania. New high voltage backbone facilities are required to mitigate these reliability issues. **The new backbone facilities will also be assessed for their ability to support deliveries from a cluster of new coal-fired generating facilities currently proposed for central and northeastern Pennsylvania.** Three major new backbone transmission facilities have been approved by the PJM to resolve growing reliability criteria violations in eastern Mid-Atlantic PJM and west/central Pennsylvania, upgrades that are now part of PJM's RTEP:

- Susquehanna – Lackawanna – Jefferson – Roseland 500 kV circuit
- Amos – Bedington – Kemptown 765 & 500 kV circuit
- Mid-Atlantic Power Pathway (MAPP): Possum Point – Calvert Cliffs – Indian River – Salem 500 kV Circuit

PJM 2007 RTEP, Section 4k, p. 259-260.¹

- The EIS must address distinctions between stated purpose and other purposes.
- The EIS references PJM's 2007 load forecast, which is an outdated load forecast. The 2010 Load Forecast shows that the PJM peak was in 2006 and that the load has declined significantly since 2007:

¹ The PJM 2007 RTEP may be found online: <http://www.pjm.com/documents/reports/rtep-report/2007-rtep.aspx>



PJM 2010 Load Forecast, p. 24.² The above information is also shown in a chart form, which should also be included in the EIS as a part of the “need” (or lack thereof) discussion:

Table B-1
SUMMER PEAK LOAD (MW) AND GROWTH RATES FOR EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION 2010-2026

	METERED 2009	UNRESTRICTED 2009	NORMAL 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Annual Growth Rate (10 yr)
AE	2,707	2,707	2,650	2,734	2,897	3,032	3,136	3,198	3,249	3,288	3,332	3,372	3,405	3,443	2.3%
BOE	6,556	6,596	7,290	7,456	7,656	7,781	7,926	8,076	8,240	8,331	8,488	8,609	8,761	8,919	1.8%
DPL	3,843	3,843	3,960	4,023	4,089	4,153	4,219	4,279	4,339	4,383	4,435	4,488	4,539	4,601	1.4%
JCPL	5,738	5,738	6,310	6,440	6,625	6,843	7,000	7,115	7,212	7,323	7,373	7,451	7,533	7,611	1.7%
METED	2,839	2,839	2,890	2,920	3,006	3,112	3,189	3,243	3,283	3,314	3,346	3,375	3,407	3,444	1.7%
PECO	7,593	8,009	8,590	8,528	8,700	8,991	9,173	9,327	9,447	9,519	9,601	9,680	9,751	9,821	1.4%
PENLC	2,810	2,817	2,810	2,843	2,900	2,994	3,063	3,119	3,176	3,223	3,273	3,310	3,365	3,420	1.9%
PEPCO	6,323	6,323	6,960	7,048	7,144	7,273	7,371	7,457	7,538	7,591	7,668	7,740	7,822	7,909	1.2%
PL	6,843	6,853	7,140	7,161	7,345	7,554	7,727	7,833	7,924	7,986	8,044	8,096	8,155	8,213	1.4%
PS	9,687	9,687	10,740	10,921	11,147	11,427	11,621	11,771	11,937	12,066	12,165	12,194	12,305	12,423	1.3%
RECO	371	371	430	435	444	452	462	468	473	477	481	483	489	493	1.3%
UGI	181	181	190	190	194	199	202	204	206	207	208	208	209	210	1.0%
DIVERSITY - MID-ATLANTIC (-)				530	488	599	490	512	514	380	367	373	322	305	
PJM MID-ATLANTIC	55,416	55,540	59,480	60,169	61,667	63,212	64,593	65,580	66,480	67,288	67,987	68,633	69,419	70,127	1.5%
PDOPU	11,256	11,262	11,850	12,038	12,389	12,814	13,124	13,339	13,526	13,699	13,862	14,021	14,182	14,326	1.8%
PLORP	7,023	7,034	7,300	7,314	7,510	7,721	7,896	8,066	8,092	8,167	8,220	8,277	8,337	8,388	1.4%

Note:
Normal 2009 and all forecast values are non-coincident as estimated by PJM staff.
Normal 2009 and all forecast values represent unrestricted peaks.
All average growth rates are calculated from the first year of the forecast.

PJM 2010 Load Forecast, p. 33.

² PJM’s 2010 Load Forecast online: <http://www.pjm.com/documents/~media/documents/reports/2010-load-forecast-report.ashx>

The EIS should consider the 2007, 2008 and 2009 PJM State of the Market Reports from Monitoring Analytics.³ The 2009 Report was just released yesterday, March 11, 2010.

System Alternatives – NEPA review

- System alternatives must be addressed individually and collectively for their ability to address claimed need.
- System alternatives must be addressed and weighed, individually and in combination, against the project as proposed to determine whether they are less environmentally damaging and degrading options to meet the need.
- System alternatives that must be addressed in the EIS include:
 - Two of the three transmission projects above were cancelled due to lack of need, calling into question the need for the third project, the Susquehanna-Roseland line.
 - Use of differently located energy resources to satisfy need claim, decreasing and/or obviating need for transmission.
 - Conservation – including impact of greatly decreased demand
 - Economic solutions to claimed need, including but not limited to:
 - Holding RPM auction. PJM’s RPM auction scheduled for July 12, 2010 has been canceled due to decreased demand.⁴
 - Inclusion of affected areas in Northern New Jersey (PS, PS-North) in PJM’s Base Residual Auction.
 - Offshore backbone renewable transmission as proposed by Mid-Atlantic governors.⁵
 - A low voltage option must be considered.
 - Timing of transmission additions and upgrades must be addressed, particularly in light of the significantly decreased demand.
 - Undergrounding – see separate section below.
 - All of the above alternatives acting in concert.

Scenic

- The EIS must inventory and address impacts on the Delaware Water Gap as wintering habitat for bald eagles and other raptors.
- The EIS must inventory and address impacts on the Delaware Water Gap as habitat for birds and other wildlife.
- The EIS must address viewshedd from points within and beyond park boundaries.

³ Online at: http://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2009.shtml

⁴ See post on Legalelectric, with link to PJM notice: [Demand so low PJM cancels RPM auction](#) March 2nd, 2010

⁵ See, e.g., Press Release: Markell: Delaware is Committed to Offshore Wind at <http://governor.delaware.gov/news/2009/12december/20091203-offshorewind.shtml>

- The EIS must address compatibility of transmission towers with mission and purpose of the park and its scenic and natural setting.

Undergrounding

Many aspects of undergrounding must be addressed.

- A full analysis of underground options, including location, configurations and cost, for all proposed river crossings should be included in the EIS. If there are other non-aerial options that are not underground, these should be analyzed as well.
- Undergrounding routes different from an underground version of an above-ground route location should be considered. There may be feasible underground options at different locations.
- A full analysis of underground options, including location, configurations and cost, should be considered for all densely populated areas. If there are other non-aerial options that are not underground, these should be analyzed as well.
- Underground lines may be viable independent of significant aboveground constraints. A number of options should be analyzed.
- The discussion of undergrounding should take into account other agency and organization comments regarding “non-aerial” crossings of the DWG.
- Applicants repeatedly state that they cannot underground 500kV lines. This is false. Applicants could, they just do not want to underground, and will if ordered or if an agreement is reached.. The prior undergrounding experience of applicants and other utility or other transmission providers should be incorporated into the EIS.
- A recent report, released February 24, 2010, sheds light on underground, where undergrounding was found to be feasible and not as expensive as previously thought. This report, from the Alberta Electric Service Operator is available online⁶, and the findings of this report regarding undergrounding of high voltage transmission must be incorporated into the EIS. See Attachment B, p. 28-32 and Table 45, §12.2, [Technical Report by CCI: Feasibility Study for 500 kV AC Underground Cables for Use in the Edmonton Region of Alberta](#) [Posted: February 24, 2010]. Underground was also considered for part of the Mid-Atlantic Power Pathway, a 500kV transmission line. MAPP has since suspended by PEPCO, the project promoter.
- When comparing cost of undergrounding, compare it as increase in costs for ENTIRE project, not a comparison of increase in costs for crossing the Delaware Water Gap alone.

⁶ The iterations and comments and the full report are available on the AESO Feasibility Study for 50kV Underground Cables page: <http://www.aeso.ca/transmission/20001.html>

- When comparing cost of underground, address party paying that cost, whether ratepayers in Pennsylvania, New Jersey, across all of PJM, and/or across PJM customer base.

Cost analysis must not be skewed

- Because the “route” in question is but a SMALL part of the Susquehanna-Roseland route, costs are skewed. Undergrounding part of the route, if considered as mitigation, would have a much higher percentage of cost for just that portion than if the cost of underground were considered against the \$1.7-2 billion cost of the entire route. This skewing must be avoided in the EIS.

Cost information and analysis must be thorough – cost must not be primary driver

Often cost considerations are the primary driver. The focus of the EIS is to determine environmental impacts.

- Cost considerations should not be the primary driver in this NEPA analysis.
- NPS should make best efforts to quantify those ethereal aspects associated with the environment, such as preservation of natural land, wildlife habitat, migratory corridors, avoidance if increased mercury levels in waters, scenic viewsheds, etc. There is much information available on quantification of these factors.
- Cost analysis must provide enough information to determine why one option would cost more than another, other than apparent length.
- Other considerations add to cost, for example, turning corners requires more robust structures and hence, higher cost. Structures capable of double circuiting are more expensive. Foundations in sandy soil or wetlands could require additional engineering and materials, and cost more. Structures for large spans must also be more robust and cost more. These considerations must be addressed, the cost estimates must be itemized, etc., in sufficient detail to compare costs of the various alternatives.
- Analysis of project costs must also include costs such as the cost of loss of any funding due to construction of the project, costs of mitigation, etc.
- Costs of mitigation must be addressed up front to determine adequacy, if not, impacts may be left unmitigated and who will pick up the tab?
- RoW acquisition costs vary widely and should be addressed.
 - Routing with increased easement should be specified, on maps and with legal descriptions, disclosing right of way that needs to be acquired.
 - Valuation process of parkland should be discussed.

- Evaluation of right of way width should be addressed, and NPS or other federal standards or recommendations should be disclosed and cited.
- Factors considered in NPS or other federal standards regarding right of way width should be disclosed.

Federal policy on utility accomodation must be considered.

- Federal policy or policies regarding Utility Accomodation and statutory restrictions on sharing of Rights of Way must be disclosed and addressed.
- Specifically identify areas where planned route is not feasible due to easement considerations, i.e., fall distance, land not available, access roads not available.
- If analysis concludes that routes are infeasible, this should be clearly stated, and then remove infeasible route options from consideration.
- If aerial routes are infeasible, this should be clearly stated, and then aerial routes should be removed from consideration.

Condcutor Blowout

Conductor blowout is a factor in corridor sharing that was not adequately addressed by applicants. Blowout is the distance the conductor cables can blow away from the centerline in wind. For the majority of the length of this project, the right of way is 150 feet, with just 75 feet on each side of the centerline. However, the blowout⁷ distance reported ranges from 84.96 feet to 184.23 feet. This means that in extreme winds, the conductor could extend beyond the edge of PSE&G’s right of way, in distances ranging from just under 10 feet to nearly 115 feet past the edge of the right of way. A PSE&G exhibit shows that at a 100% span length, 14 are in violation, and at a 80% span length, 6 are in violation. Exhibit 135, STL-2, S-ENR-35, “Blowout Summary.”⁸

- Exhibit 135, STL-2, S-ENR-35, must be considered when analyzing corridor use and expansion.
- A birds-eye blowout diagram should be included in the EIS.⁹

Emissions information

As above, [t]he new backbone facilities will also be assessed for their ability to support deliveries from a cluster of new coal-fired generating facilities currently proposed for central and northeastern Pennsylvania.”

⁷ “Blowout” is the distance the conductor moves longitudinally in high wind.

⁸ Blowout chart of Exhibit available online: <http://nocapx2020.info/wp-content/uploads/2010/02/blowout.pdf>

⁹ A “Birds Eye” blowout chart can be found online: <http://nocapx2020.info/wp-content/uploads/2010/02/attachment4-full.pdf>

PJM 2007 RTEP, Section 4k, p. 259-260.¹⁰ This admitted facilitation of existing and new coal-fired generating facilities will increase emissions and airborne deposition over the Delaware Water Gap.

- The EIS should contain information regarding increased ozone levels due to enabling increased emissions from coal plants on the western end of the line that will contribute significantly to ozone levels.
- The EIS should contain information regarding increased haze over the DWG due to enabling increased emissions from coal plants, as above.
- The EIS should contain information regarding increased increased Criteria Air Pollutants over the DWG due to enabling increased emissions from coal plants, as above.
- The EIS should contain information regarding increased production of CO₂ due to
- The EIS should contain information regarding increased increased Hazardous Air Pollutants over the DWG due to enabling increased emissions from coal plants, as above.
- The EIS should contain information regarding increased production of CO₂ due to enabling increased emissions from coal plants, as above.
- The EIS should contain information regarding increased increased hazardous air pollutants over the DWG due to enabling increased emissions from coal plants, as above.
- The EIS should contain information regarding increased production of other air pollutants due to enabling increased emissions from coal plants, as above.

Groundwater contamination

- The EIS should address potential for groundwater and surface water contamination from concrete leachate from foundations.
- The EIS should address potential for groundwater and surface water from wooden poles using pentachlorophenol and/or other harmful substances.
- If wooden poles are to be used at any point, the EIS should contain full disclosure and discussion of chemicals that the poles are treated with and potential impacts.

Electromagnetic field – charts in EIS are way off

Electromagnetic fields will have an impact on all park visitors near the line and those hiking the Appalachian Trail. Magnetic field levels are grossly underestimated in utility information thus far. The project has a 500kV line that is quad or tri bundled with a 3005MVA capacity. The size of the bundle has been reduced, but the same claimed 3005MVA capacity will be spread over three conductors per phase. Magnetic fields are a function of the current on the line, measured in amps. Several witnesses testified that the “peak” for the 500kV line would be 1,657 amps. Testimony of King, TR. p. 1037, l. 20. Testimony revealed that thermal limits, the highest possible with the planned conductor, are far above that, 1,838 amps per conductor wire, for a total of 7,352 amps if quad-bundled and 5,514 amps if tri-bundled. Testimony of King, TR. at 1254, l. 10-18.

¹⁰ The PJM 2007 RTEP may be found online: <http://www.pjm.com/documents/reports/rtep-report/2007-rtep.aspx>

- Accepting utility information without independent verification and independent calculation based on conductor specifications is insufficient – all utility claims as to current levels must be independently verified..
- Magnetic fields should be calculated for:
 - Utility stated “peak” of 1,657 amps
 - Thermal limits of 7,352 and 5,514 amps
 - A range of values inbetween
- Magnetic fields should be calculated for a range of distances:
 - Under center line
 - 25, 50, 75, 100, 125, 150, 200, 250, and 300 feet from the centerline.
- Magnetic field levels must be calculated for a year that the project is projected to be operational, and five years out, i.e., 2014 and 2019. (the year used for current levels in the BPU proceeding was a year or two BEFORE the line was expected to be operational!!)
- Underground lines still generate electric fields. Specifics should be disclosed in this narrative, with a wide range of amp/current levels, to equitably compare impacts of EMF between underground and above ground.

Noise

- Because this is a park, the noise of the line and substations should be considered.
- Establish specifications for all transmission conductors, substation equipment, including transformers, switching gear, etc.
- Perform noise modeling based on equipment specifications
- Include chart with substation noise modeling in the FEIS
- Address substation mitigation techniques, including but not limited to a contained building, walls, berms and evergreen plantings.
- Construction noise should be addressed.

Substation lighting

- Light, particularly in a park, is pollution. Frequently substations are lit up like a spacestation or refinery. The EIS should include information about substation or other lighting for this project and determine whether there is an impact on the park and its visitors.
- The EIS must include a lighting plan and an analysis of lighting impacts.

Property Values

The EIS should contain:

- A range of property valuation and devaluation scenarios
- Socioeconomic discussion should address impacts of devaluation to government and individual landowners

- Socioeconomic discussion should address impacts of devaluation to tax base of local governments
- Costs above should be addressed in the project cost section of the EIS.

Impingement of future park development

A transmission line can be a barrier to development. The EIS should include:

- Address NPS and other agency plans for land acquisition in the area.
- Address NPS and other agency plans for development of park facilities.
- Examine the Comprehensive Plans of affected counties, cities and townships and address preservation and development plans focused on the nearby park.
- Identify areas within preservation expansion zones of cities, using maps to show impacts.
- Address impacts on existing and planned expansion and park development plans.
- Address costs of impingement of future development and include in cost section of EIS

Thank you for the opportunity to submit this Comment.

Very truly yours,



Carol A. Overland
Legalelectric
P.O. Box 176
Red Wing, MN 55066
(612) 227-8638 and (302) 834-3466
overland@legalelectric.org