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BEFORE THE
COMMONWEALTH COURT OF PENNSYLVANIA

ENERGY CONSERVATION COUNCIL OF PENNSYLVANIA, Petitioner v. PENNSYLVANIA PUBLIC UTILITY COMMISSION, Respondent	: : : : : : : : :	Commonwealth Court Docket No. 51C.D. 2009

BRIEF OF THE ENERGY CONSERVATION COUNCIL

The Energy Conservation Council of Pennsylvania ("ECC") hereby submits its Brief in opposition to the Order of the Commission entered on December 12, 2008 in Application of Trans-Allegheny Interstate Line Co. ("TrAILCo") Docket Nos. A-110172, A-110172F002, A-110172F003, A-110172F0004, G-00071229 (the "Order") relating to the "Pennsylvania 502 Junction Facilities."

I. STATEMENT OF JURISDICTION

This Court has jurisdiction over this matter by reason of Section 763(a)(1) of the Judicial Code, 42 Pa. C.S. § 763(a)(1).

II. ORDER IN QUESTION

This Appeal is made from *the portion* of the Opinion and Order of the Pennsylvania Public Utility Commission at Docket Nos. A-110172, A-110172F002, A-110172F003, A-110172F0004, and G-00071229, entered on December 12, 2008, which, on pages 68-70 of such Order, approved the Partial Settlement Agreement between TrAILCo, West

Penn Power Company and the Greene County Board of Commissioners, granted the Exceptions filed by TrAILCo regarding the Pennsylvania 502 Junction Facilities, modified the August 21, 2008 Recommended Decision of Administrative Law Judges Mark A. Hoyer and Michael A. Nemec, granted TrAILCo a Certificate of Public Convenience with respect to the Pennsylvania 502 Junction Facilities, granted TrAILCo authorization and certification to locate, construct, operate and maintain certain high voltage electric transmission lines and associated substation facilities with respect to the Pennsylvania 502 Junction facilities, granted TrAILCo eminent domain authority with respect to the Pennsylvania 502 Junction Facilities, and granted TrAILCo an exemption from local zoning regulation with respect to the Pennsylvania 502 Junction Facilities. The text of the Commission's determinations in these respects is set forth below:

1. That the Partial Settlement Agreement among Trans-Allegheny Interstate Line Company, West Penn Power Company, and the Greene County Board of Commissioners is approved.

4. That the Exceptions filed by Trans-Allegheny Interstate Line Company regarding the Pennsylvania 502 Junction Facilities are granted in part and denied in part, consistent with this Opinion and Order.

6. That the Recommended Decision of Administrative law Judges Mark A. Hoyer and Michael A. Nemec, issued on August 21, 2008, is modified, consistent with this Opinion and Order.

7. That Trans-Allegheny Interstate Line Company's Application for a Certificate of Public Convenience is granted with respect to the Pennsylvania 502 Junction Facilities, subject to the conditions set forth in Section III.C. of this Opinion and Order and

contained in the Exceptions of Trans-Allegheny Interstate Line Company, Appendix A, Items 1, 2 and 4.

8. That Trans-Allegheny Interstate Line Company's Application for authorization and certification to locate, construct, operate and maintain certain high voltage electric transmission lines and associated substation facilities is granted with respect to the Pennsylvania 502 Junction Facilities, subject to the conditions set forth in this Opinion and Order and contained in the Exceptions of Trans-Allegheny Interstate Line Company, Appendix A, Items 6 and 11.

9. That Trans-Allegheny Interstate Line Company's Application for eminent domain authority is granted with respect to the Pennsylvania 502 Junction Facilities, consistent with this Opinion and Order, subject to the conditions set forth in this Opinion and Order.

10. That Trans-Allegheny Interstate Line Company's Application for exemption from local zoning regulation is granted with respect to the Pennsylvania 502 Junction Facilities, consistent with this Opinion and Order.

III. STATEMENT OF THE SCOPE AND STANDARD OF REVIEW

Consistent with the standard set forth in the Administrative Procedure Act, the Commonwealth Court's review of the Commission's determination in this case is limited to determining whether constitutional rights were violated, an error of law was committed, or necessary findings of fact were not supported by substantial evidence. 2 Pa.C.S. § 704; *Popowsky v. Pennsylvania Pub. Util. Comm'n*, 589 Pa. 605, 622, 910 A.2d 38, 48 (2006); *Rohrbaugh v. Pennsylvania Pub. Util. Comm'n*, 556 Pa. 199, 205, 727 A.2d 1080, 1084 (1999); *Pennsylvania Power & Light Co. v. Pennsylvania Pub. Util. Comm'n*, 696 A.2d 248, 250 (Pa.Cmwlth. 1997) [hereinafter "*PP&L*"], *appeal denied PP&L v. Pa.P.U.C.*, 553 Pa. 709, 719

A.2d 748 (1998); *Teltron, Inc. v. Pennsylvania Pub. Util. Comm'n,* 83 Pa.Cmwlth. 407, 409, 477 A.2d 599, 600 (1984); *Pittsburgh-Johnstown-Altoona Express, Inc. v. Pennsylvania Pub. Util. Comm'n*, 123 Pa. Cmwlth. 237, 241, 554 A.2d 137, 138-39 (1989).

In determining whether the Commission committed an error of law in interpreting constitutional, legal or regulatory provisions, the Court's review is plenary. *See Arippa v. Pennsylvania Public Utility Com'n, --- A.2d ----, 2008 WL 5684632(Pa.Cmwlth. 2009), citing Chester Water Auth. v. Pa. Pub. Util. Comm'n*, 581 Pa. 640, 648, n. 9, 868 A.2d 384, 389, n. 9 (2005). Although the Commission's interpretation of a utility law is given deference and will not be reversed unless clearly erroneous, when interpreting provisions of a statute, "and the language of the statute is clear and unambiguous, a court need go no further to discern the legislature's intent." *Arippa, supra, citing City of Philadelphia v. Pennsylvania Pub. Util. Comm'n*, 829 A.2d 1241, 1244 (Pa.Cmwlth. 2003); *Pennsylvania Power Co. v. Pennsylvania Public Util. Comm'n,* 932 A.2d 300, 306 (Pa.Cmwlth. 2007); *Popowsky v. Pennsylvania Pub. Util. Comm'n*, 550 Pa. 449, 462-63, 706 A.2d 1197, 1203 (1997). *Elite Indus., Inc. v. Pennsylvania Pub. Util. Comm'n*, 574 Pa. 476, 482, 832 A.2d 428, 431 (2003); 1 Pa.C.S. § 1921(b).

With respect to the review of the Commission's application of its regulations, this Court has applied a two step analysis, finding (1) that the administrative interpretation is controlling unless it is plainly erroneous or inconsistent with the regulation and (2) that the regulation must be consistent with the statute under which it was promulgated. *See Popowsky v. Pennsylvania Public Utility Com'n,* 589 Pa. 605, 629, 910 A.2d 38, 52-53 (2006), citing *Commonwealth of Pennsylvania, Dept. of Public Welfare v. Forbes Health System*, 492 Pa. 77, 81, 422 A.2d 480, 482 (1980).

The Supreme Court has interpreted the "in accordance with law" standard to encompass, inter alia, review for manifest and flagrant abuse of discretion or purely arbitrary execution of the agency's duties or functions." *AT & T v. Pennsylvania Public Utility Comm'n*, 558 Pa. 290, 306, n. 9, 737 A.2d 201, 210, n. 9 (1999), citing *Slawek v. Commonwealth, State Bd. of Medical Educ. and Licensure*, 526 Pa. 316, 322, 586 A.2d 362, 365 (1991). An abuse of discretion by the PUC only arises when the judgment is manifestly unreasonable or is the result of partiality, prejudice, bias, or ill-will as shown by the record. *South River Power Partners, L.P. v. Pennsylvania Public Utility Com'n*, 696 A.2d 926, 932, n. 8 (Pa. Cmwlth. 1997); *UGI Utilities-Gas Division v. Pennsylvania Pub. Util. Comm'n*, 673 A.2d 43, 46 (Pa.Cmwlth.1996).

While the Court may not exercise its independent judgment on the record or resolve conflicting evidence, the Court must review whether there is substantial, legally credible evidence to support the Commission's action. *York v. Pennsylvania Pub. Util. Comm'n*, 3 Pa.Cmwlth. 270, 275-76, 281 A.2d 261, 263-64 (1971), *aff'd*, 449 Pa. 136, 295 A.2d 825 (1972); *Lower Paxton Township v. Pennsylvania Pub. Util. Comm'n*, 13 Pa.Cmwlth. 135, 139, 317 A.2d 917, 920 (1974). It goes without saying, and is well-established, that the Commission, must rely on the evidence in the case before it and cannot rely on evidence beyond the record. *Aizen v. Pennsylvania Pub. Util. Comm'n*, 163 Pa. Super. 305, 316, 60 A.2d 443, 449 (1948). Although it is also well-established that the Commission's decision need not discuss each and every contention raised by the parties, *Allegheny Center Associates, Inc. v. Pa. Public Utility Commission*, 131 Pa.Cmwlth. 352, 358, 570 A.2d 149, 152 (1990); *Barasch v. Pennsylvania Public Utility Commission*, 101 Pa. Cmwlth 76, 84, 515 A.2d 651, 655 (1986), nonetheless its decision must be supported by the evidence of record and "guess" work or evidence beyond the record does not form an appropriate basis for its decision. See *James City v. James City Gas Co.*, 211 Pa. Super. 268, 272, 236 A.2d 525, 527 (1967). Even though reliance on incompetent evidence does not necessarily require the reversal of an order, if the action of the Commission in ruling based on such incompetent evidence is a clear error of law fatal to the order or if it makes the order so arbitrary to amount to a denial of due process, the order must be reversed. *See, e.g., City of Pittsburgh v. Pennsylvania Pub. Util. Comm'n,* 174 Pa. Super. 224, 231, 101 A.2d 127, 131 (1953), citing *Pittburgh & Lake Erie R. Co. v. Pennsylvania Pub. Util. Comm'n*, 170 Pa. Super. 411, 425, 85 A.2d 646, 654 (1952).

Finally, in a case such as this, where specific factors are to be considered in evaluating whether constitutional, legal and regulatory mandates have been met, not only must the Commission consider all relevant factors, but it must also make specific findings of fact regarding the factors it considered in arriving at its decision. *City of Philadelphia v. Pennsylvania Pub. Util. Comm'n,* 822 A.2d 94, 102, n. 13 (Pa. Cmwlth. 2003); *AT&T v. Pa. P.U.C.*, 558 Pa. 290, 306, 737 A.2d 201, 209 (1999); *Greene Township Bd. of Supervisors v. Pennsylvania Pub. Util. Comm'n,* 668 A.2d 615, 618-19 (Pa.Cmwlth.1995); *Monroeville v. Pennsylvania Pub. Util. Comm'n.,* 143 Pa.Cmwlth. 668, 671, 600 A.2d 655, 657 (1991).

IV. STATEMENT OF QUESTIONS INVOLVED

A. Did the PUC legally err in holding that 66 Pa.C.S. §2805 obligates the PUC "to enhance regional reliability and mitigate transmission constraints in order to reduce congestion for ratepayers in Pennsylvania and adjacent jurisdictions"?

PUC Answer Below: Not Answered Directly Below.

B. Did the PUC legally err in holding that "congestion" issues were the equivalent of "reliability" issues, or that relief of congestion was sufficient, in determining the "need" for the Pennsylvania 502 Junction Facilities under 52 Pa. Code §57.76?

PUC Answer Below: Not Answered Directly Below.

C. Did the PUC legally err or violate Article I, § 27 of the Pennsylvania Constitution, when it approved the Pennsylvania 502 Junction Facilities without proper evaluation of alternatives, or based on PJM's 2006 Regional Transmission Expansion Plan (RTEP), when the RTEP is (1) developed for different purposes and applies different standards than the purposes and standards required to be applied by the Commission in its determination, (2) does not require the consideration of alternative technologies and available alternatives, and (3) does not require a determination of minimum adverse environmental impacts, considering the electric power needs of the public, the state of available technology and the available alternatives?

PUC Answer Below: Not Answered Directly Below.

D. Did the PUC legally err in its application of the regulatory standards under 52 Pa. Code §57.72, §57.75 or §57.76, its constitutional obligations under Article I, § 27, or were its actions arbitrary and capricious and not supported by substantial evidence, by failing to require TrAILCo to assess and attempt to minimize the environmental and health and safety impacts of the project, the effect of the project on coal-fired generation or pollution, describe the alternate routes it "considered" with enough particularity to distinguish between them, or compare the relative merits of each of the alternate routes?

PUC Answer Below: Not Answered Directly Below.

V. STATEMENT OF THE CASE

A. <u>Form of Action and Procedural History</u>

On April 13, 2007, TrAILCo filed five Applications with the Commission, including (a) an Application for a Certificate of Public Convenience for authorization to offer, render, furnish or supply electrical transmission service, (b) an Application for a Certificate of

Public Convenience (Application) to locate, construct and operate three 138 kV transmission lines and one 500 kV transmission line in portions of Washington County and Greene County in southwestern Pennsylvania, (c) a request for authority to exercise eminent domain, (d) a request for exemption from municipal zoning regulations with respect to the construction of buildings, and (e) an application for approval of certain related affiliated interest agreements. The Applications included two separate transmission line projects – (1) the "Pennsylvania 502 Junction Facilities," including a new substation and a 1.2 mile 500 kV transmission line, extending from the substation and across Greene County to the West Virginia Border, and (2) the "Prexy Facilities," including a new substation, a 500 kV line to connect the Prexy Substation and the 502 Junction Substation, and three new 138 kV lines to connect the Prexy Substation to existing transmission lines of Allegheny Power.

The Public Utility Commission assigned the matter to the Office of Administrative Law Judge, which subsequently assigned it to Administrative Law Judges Michael A. Nemec and Mark A. Hoyer.

Appellant Energy Conservation Council filed its Protest to the subject application on May 25, 2007. Numerous other parties either filed Protests or intervened in this proceeding before the Public Utility Commission. These included the Office of Consumer Advocate (OCA), which intervened as of right and filed a Protest on May 25, 2007. The PUC's Office of Trial Staff (OTS) also intervened in this proceeding. Petitions to Intervene were also filed by the following: CPV Warren, LLC; Columbia Gas of Pennsylvania and Columbia Gas Transmission Corporation (collectively Columbia); West Penn Power Industrial Intervenors (WPPII); Allegheny Electric Cooperative, Inc. and the Pennsylvania Rural Electric Association; Pennsylvania Game Commission; and the Pennsylvania Department of Transportation.

Representative H. William DeWeese, Greene County Commissioners, and Washington County Commissioners filed Protests and were represented by counsel at the prehearing conference. Over three hundred (300) individual Protests were also filed.

A prehearing conference was held on June 19, 2007 and a Prehearing Order was subsequently issued on July 26, 2007 (First Prehearing Order). Twelve public input hearings were held in Washington and Greene Counties at which approximately two hundred and eighty-eight (288) witnesses testified. Site visits to affected properties were also made and sworn testimony was taken at each of the site visits, with a total of approximately eighty-two (82) witnesses testifying at the site visits. The Second Prehearing Order scheduled approximately twenty-five site visits in Washington and Greene Counties. Approximately twenty (20) additional sites were also viewed and described on the record.

On October 15, 2007, a Third Prehearing Order was issued and established a procedure for raising and resolving objections to testimony and materials offered by witnesses at the public input hearings and site views; established a format for prepared testimony; and resolved other procedural matters.

On October 18, 2007, the Office of Consumer Advocate filed a Motion for Injunctive Relief. The OCA requested that TrAILCo and its land agents, acting on behalf of Allegheny Power, be enjoined from engaging in activities including misrepresentation of facts, coercive acts or harassment of consumers. On October 23, 2007, the OCA also filed its Motion to Require Applicant TrAILCo to Cure Due Process and Regulatory Violations. The OCA requested that the Commission require TrAILCo to amend its Application to give proper notice to all affected parties. Specifically, the OCA's Motion concerned three groups of affected consumers: (1) consumers who had been formally noticed of the Application, but did not receive maps that were sufficiently specific to show the precise effect of the placement of the proposed line on their properties, according to public input testimony; (2) those whose properties were within the originally-proposed 1200-foot corridor, to whom TrAILCo provided no notice of the Application; and (3) those whose properties might have been impacted differently by the revisions in the route than by the initially proposed route. On December 5, 2007, the Rulings on Various Motions addressed both of the OCA's Motions. The Rulings on Various Motions held the OCA's Motion for Injunctive Relief in abeyance pending further development of the evidentiary record and denied the OCA's Motion to Require Applicant TrAILCo to Cure Due Process and Regulatory Violations.

On December 19, 2007, TrAILCo filed Objections to Written Statements and Exhibits Offered by Witnesses at the Public Input Hearings. Answers were filed by the Energy Conservation Council, Office of Consumer Advocate and by various public input witnesses. On February 7, 2008, the Administrative Law Judges issued an Interim Order Establishing Guidelines for Litigation for the Case (Interim Order) which ruled on the objections to testimony and exhibits presented at the public input hearings. The Interim Order also outlined requirements for parties to meet prior to the technical evidentiary hearings.

On January 2, 2008, the Administrative Law Judges issued a Fourth Prehearing Order in the case. The Fourth Prehearing Order established a revised procedural schedule for written surrebuttal testimony, written rejoinder testimony, technical evidentiary hearings, and main briefs and reply briefs.

Direct testimony and exhibits of other parties were submitted on October 31, 2007 Parties filing testimony included OCA, OTS, ECC, and Columbia Gas of Pennsylvania. On December 10, 2007, TrAILCo submitted rebuttal testimony and exhibits. Surrebuttal testimony and exhibits were submitted on February 13, 2008 by OCA, OTS, and ECC. On March 19, 2008, TrAILCo submitted rejoinder testimony and supplemental rebuttal testimony of various witnesses.

Technical evidentiary hearings were held at the Pittsburgh State Office Building from March 24, 2008 to March 28, 2008 and on March 31, April 1 and April 3, 2008. TrAILCo moved a Stipulation into the record that resolves the issues Columbia raised in its Petition to Intervene.

Main and Reply Briefs were filed by the parties with the Pennsylvania Public Utility Commission on May 5, 2008 and May 29, 2008.

On August 21, 2008, the Office of Administrative Law Judge issued the 239-page Recommended Decision of Administrative Law Judges Nemec and Hoyer. The ALJs recommended denial of all five of the Applications. The ALJs findings included the following, as summarized by the Public Utility Commission in its Order:

> (a) TrAILCo's application for a Certificate of Public Convenience be denied because TrAILCo failed to prove a need for the facilities and failed to prove that TrAILCo is technically fit, R.D. at 78;
>
> (b) TrAILCo's application for authorization to construct and operate the transmission lines be denied, *inter alia*, because TrAILCo failed to prove that (i) there is a need for the project, R.D. at 118 and 149, (ii) the route evaluation and selection process complies with Commission regulations, R.D. at 169, (iii) the project mitigates environmental impacts, R.D. at 190, and (iv) the project does not create an unreasonable risk of danger to the health and safety of the public, R.D. at 201-202;
>
> (c) TrAILCo's application for authorization to exercise the power of eminent domain be denied at this time, in part, because TrAILCo does not yet have final proposed routes for any of the proposed lines, R.D. at 206;
>
> (d) TrAILCo's application for exemption from local zoning regulations be denied, in part, because TrAILCo failed to introduce evidence concerning

the proposed site of the buildings in question or the local zoning regulations that impact these buildings, R.D. at 209-210; and

(e) TrAILCo's application for approval of affiliated interest agreements be denied because TrAILCo is not a public utility, R.D. at 217.

On September 10, 2008, Exceptions to the ALJ's Recommended Decision were filed by TrAILCo. TrAILCo also filed a Motion for Partial Stay of the proceedings, requesting that the Commission defer its review of the applications for the Prexy facilities and asking the Commission to address the Prexy issues in the context of a "collaborative" to "explore whether there are possible new and creative alternatives to that project."

On September 22, 2008, replies to TrAILCo's Exceptions were filed by numerous parties, including the ECC, the Commission's Office of Trial Staff, and the Office of Consumer Advocate. These parties also answered the Motion for Partial Stay.

On September 25, 2008, TrAILCo filed a "Partial Settlement Agreement." The "Partial Settlement Agreement," was a settlement between TrAILCo, West Penn Power Company, and Greene County on the issues. The Partial Settlement Agreement acknowledges that the Company will consider alternatives such as Demand Side Management, Energy Efficiency and improvements to existing facilities for the proposed Prexy Facilities project. No other party joined in the Partial Settlement Agreement.

On October 8, 2008, TrAILCo filed an Order of the State Corporation Commission of the Commonwealth Virginia and asked that the Commission take official or judicial notice of the order in accordance with 52 Pa. Code § 5.408. On October 20, 2008, TrAILCo filed correspondence concerning one of the properties required for the Pennsylvania 502 Junction Facilities, indicating that it had been determined that one of the structures was on property of an adjacent landowner rather than the property owner who had been advised that the structure was on his property.

On October 31, 2008, the ECC responded to TrAILCo's October 8, 2008 and October 20, 2008 correspondence to the PUC, opposing TrAILCo's request to take official or judicial notice of the Virginia decision and to its request to effectively reopen the record in this proceeding that had been closed on May 30, 2008. The ECC also took issue with TrAILCo's identification of a new property owner for which no application for eminent domain had been made and submitted with respect to the Applications at issue in this case.

On December 12, 2008, the Public Utility Commission issued its Opinion and Order, approving the Partial Settlement between TrAILCo and Greene County and approving TrAILCo's Application for a Certificate of Public Convenience to provide public utility service and to locate and construct the Pennsylvania 502 Junction Facilities. The ECC filed its Petition for Review on January 12, 2009.

B. <u>Brief Statement of Prior Determination Of Government Unit</u>

As noted above, ALJs Nemec and Hoyer, issued a "Recommended Decision" to the Commission dated August 21, 2008, recommending denial of all of TrAILCo's Application. The ALJs' Recommended Decision has not yet been reported but is available from the Commission in hard copy and electronic format (on its website) and is included in Appendix A to this Brief.

C. <u>Names of Officials Whose Determination is to be Reviewed</u>

The Order of the Public Utility Commission was decided by a vote held on November 13, 2008 at Public Meeting, and its Order was entered on December 12, 2008. The vote was decided 4-1, with Vice Chairman Tyrone Christy dissenting. Chairman James Cawley and Commissioners Robert Powelson, Wayne Gardner, and Kim Pizzingrilli voted in favor of the approved action of the Commission. Individual statements were issued in favor of the decision by Chairman Cawley and Commissioners Powelson and Gardner. A dissenting statement was issued by Vice Chairman Christy.

D. Narrative of Facts Necessary To Be Known To Determine Points in Controversy

The issues which the ECC seek to have reviewed in this case concern the basis for the Public Utility Commission's determination to approve TrAILCo's Application for a Certificate of Public Convenience to locate, construct, and operate the Pennsylvania 502 Junction facilities. TrAILCo's asserted basis for the proposed facilities were forecasts that had been made of potential electric reliability issues. ECC, among others, disputed the forecast of electric reliability issues and argued that the facilities were being proposed to be constructed for reasons unrelated to reliability or need, and that they are not necessary for the service, accommodation, convenience or safety of the public. The ECC also contended that the facilities proposed had not been demonstrated to minimize environmental and health and safety impacts, and did not appropriately consider alternatives, including non-transmission alternatives and available technologies.

The Pennsylvania 502 Junction Facilities are part of a larger transmission line project which goes through portions of West Virginia, Maryland, and Virginia, known as the 502-Loudoun line. Allegheny Power (an affiliate of TrAILCo) proposed the original TrAIL project (known as Project Mountaineer) as a means of transmitting 5,000 MW of new coal-fired generation from western to eastern PJM - before any reliability criteria violations were identified. Tr. 2288-92. Subsequently, however, reliability issues were identified in support of the project in PJM's 2006 Regional Transmission Expansion Plan (RTEP), which is the basis for the 502-Loudoun line, including the Pennsylvania 502 Junction Facilities. Tr. 2237-38.

TrAILCo witness Scott Gass identified 12 alleged reliability justifications – electrical occurrences 1-12 - set forth on Exhibit SWG-1. Tr. 2238.

Of the 12 alleged electric reliability issues, electrical occurrences 1-8 involve the line rating of the Mt. Storm-Doubs line. SWG-1. TrAILCo witness Scott Gass, in his rejoinder testimony, indicated that the worst overloads of the Mt. Storm-Doubs line under any of the contingencies in SWG-1 was 156 MVA above the 2,598 MVA line rating (i.e. 2,754 MVA). *See* 4-RJ at 4-5. The line rating of the Mt. Storm-Doubs line could be raised to 2,910 MVA by resolving ground clearance issues. Tr. 2428-9; TrAILCo 20-RJ at 3.

The line ratings of the Mt. Storm – Doubs 500 kV line could be raised to 2,910 MVA by reconductoring, retensioning, or grading work and raising the height of the line, which could eliminate the need for the Pennsylvania 502 Junction Facilities, Tr. 2428-29; TrAILCo 20-RJ at 3. Reconductoring could raise the rating of the Mt. Storm-Doubs line to the rating of 2,910 MVA with a 30-week outage. TrAILCo 20-RJ at 4. Grading could raise the rating to 2,910 MVA with a 17-week outage. TrAILCo 20-RJ at 5.

Neither TrAILCo nor PJM assessed the cost of these alternatives. Reconductoring of the Mt. Storm-Doubs line was not studied as a possible solution to electrical occurrences 1-8. Tr. 2351; 2578; ECC Cross Ex.32. Retensioning of the Mt. Storm-Doubs line was not explored in the 2006 RTEP. Tr. 2426.

Modeling of electrical occurrences 5-8 on Exhibit SWG-1 was done utilizing a proportionate increase of generation throughout PJM rather than in the affected territory. ECC

St. SR-1 at 23. Tr. 2576-77. This approach produces errant results and violates Dominion's test procedures. *Id.*

No economic analysis was done in determining to include the TrAILCo project in PJM's 2006 RTEP. Tr. 2500. A cost comparison was only done with respect to the tie-in of the 500 kV line to the Meadowbrook substation to address alleged voltage issues, a small part of the project, as compared to one other possible solution – a static var compensator – for that portion of the project. Tr. 2583 - 2585. Further, non-transmission solutions were not considered to address the alleged reliability issues. Tr. 2259.

It is good planning practice to maximize to the extent reasonable and economical the transmission capabilities of existing towers and structures. Tr. 2733. All 12 of the alleged reliability issues supporting the 502 Junction Facilities have less environmentally intrusive and less costly fixes. These include transmission constrained dispatch – dispatching less economic generation to avoid transmission overloads – which could resolve all of the alleged reliability issues without the need for construction of any new transmission facilities, a solution which is permissible under North American Electric Reliability Corporation ("NERC") standards. ECC St. 1 at 21; ECC St. SR-1 at 11-12, and 20, 23; Tr. 2670-1. In conjunction with selective installation of reactive power resources, transmission constrained dispatch will solve all of the reliability problems supporting the asserted need for the 502-Loudon line. *Id*. PJM uses transmission constrained dispatch as a means to address system issues when it is operating its system but not when it is planning for new lines. Tr. 2207-08.

The 765 kV PATH line is another significant transmission line project that was not included in the modeling for the TrAIL line and was not studied to evaluate if, with modification, it could eliminate the need for the TrAIL line. Tr. 2564, 2295-96; ECC SR-1 at

15-16. Alternatives to the TrAIL line considered in the 2006 RTEP were rejected because they resulted in thermal overloads of the Pruntyown-Mt. Storm line, an overload that will be addressed by the PATH line. ECC Cross Ex. 1. According to TrAILCo's projections, electrical occurrence 9 will not occur until 2014 and, absent other considerations, does not justify a remedy by 2011. Tr. 2580-81.

Another possible alternative to the TrAIL line is a High Voltage Direct Current line from 502-Loudoun. However, this was not evaluated or considered by TrAILCo but would be a possible and practical solution, with less environmental consequences. ECC St. SR-1 at 17. Furthermore, TrAILCo did not study potential smaller fixes but looked for a "global solution" to the issues raised. Tr. 2602.

Electrical occurrences 1-8 could be resolved by increasing the line rating of the Mt. Storm - Doubs 500 kV line by reconductoring, retensioning, or raising the height of the line. TrAILCo 20-RJ at 3-5; Tr. 2428-9. The 765 kV PATH line will resolve a potential overload of the Pruntytown-Mt. Storm line and should resolve electrical occurrence 9 in Exhibit SWG-1. Tr. 2352-53; ECC Cross Ex. 21 at 3, and Ex. 23. Electrical occurrences 10-12 in SWG-1 are voltage issues in the Meadow Brook area, which have alternative fixes and also would not require the building of a 500 kV line if electrical occurrences 1-9 did not exist. Tr. 2582-83. Electrical occurrences 10-12 also will be resolved if the planned CPV Warren gas-fired generating facility were to be installed by 2011. Tr. 2583-84. They can also be solved locally by local voltage support, such as by a static var compensator. Tr. 2583.

In addition to the failure to adequately consider or implement the specific alternatives above, TrAILCo's modeling suffered from various shortfalls. The modeling tests are more rigorous than NERC standards require. TrAILCo St. 3 at 11:7-9. Existing and planned generators were improperly ignored in the modeling. ECC SR-1 at 10; Tr. 2320-2321, 2413-2414, 2624-26; ECC Cross Ex. 7. Existing generating capacity in eastern PJM was not dispatched in the modeling process. ECC SR-1 at 10. Numerous additional alternatives exist that would correct the alleged infractions, and prevent the need for the 502 Junction Facilities, including using transmission constrained dispatch or encouraging new generating capacity in eastern PJM. ECC SR-1 at 9-13, 20, 23.

TrAILCo's Line Route Evaluation Report dated April 10, 2007 (Exhibit JH-1), describes what route has been recommended for TrAIL and why that particular route has been selected. TrAILCo St. 5 at 2; Exhibit JH-1. While identifying 5 separate routes (D through H), TrAILCo did not provide information sufficient to distinguish between each route. Tr. 3258. No analysis of the comparative merits of the routes exists. Tr. 3258. TrAILCo did not disclose the reasons for the selection of the final route for the 502 Junction Segments. JH-1 at 27-28.

TrAILCo did not conduct an environmental impact analysis that addresses (1) construction impacts, (2) maintenance impacts, (3) cumulative impacts, and (4) secondary impacts. ECC St. 3, p. 11. In its line route evaluation report (JH-1) TrAILCo did not present a soil and sedimentation plan, did not detail how it would protect ground and surface waters, and did not detail how it would minimize water and air pollution. TrAILCo's Line Route Evaluation Report (JH-1) makes no mention of potential impacts on ground water. Affected property owners testified to the use of wells and springs. *See e.g.* 444:1-9 (Testimony of Carl Burkhardt); 237:17-22 (Testimony of Robert Cameron)[1].

[1] Numerous property owners testified to the use of springs and wells for both domestic use and for their animals. Tr. 132, 235, 237, 244, 257, 301, 322, 340, 341, 370, 432, 444, 457, 464, 482, 506, 514, 519, 527, 542, 549, 558, 585, 588, 665, 700, 751, 794, 798, 976, 1145, 1153, 1265, 1273, 1288, 1395, 1448, 1464, 1470, 1499, 1521, 1625, 1770, 1787, 1880, 1901, 1908, 1922, 1927, 1967, 2138, 2153, and 2180. *See* RD at 40.

The Report does not include the number and location of the required access roads. Tr. 3261:1-3264:3. The Report contains no discussion of potential environmental impacts posed by the construction and operation of the substations. Tr. 3269:15-3270:7.

TrAILCo states that the project can result in the construction and operation of four (4) new power plants capable of generating an additional 2,700 megawatts. Tr. 2823-2825.

A practical effect of the construction of TrAIL will be an increase in cheaper, coal-fired generation in Western PJM and a decrease in more expensive, non-coal generation in Eastern PJM. OCA St. 2 at 18-20; ECC Cross Ex. 18. PJM recognized this "shift" in generation in its April 18, 2007 PJM Planning Committee's "Market Efficiency Analysis Progress Report." OCA St. 2 at 18-20, Ex. RMF-2 at 13. In this report, PJM calculated an almost 11 million MWh "shift" per year of generation from the eastern and southern zones of PJM to the western zones. *Id*.

The record reveals that exposure to pollution from power generating plants, including air pollution, in Pennsylvania is significant. ECC-2 at 6-8; Exhibit RQH-4; Comments of Sierra Club Pennsylvania Chapter, Clean Air Committee (Exhibit RQH-l0). Ozone, smog, and particulate matter, 2.5 microns and smaller in Southwestern Pennsylvania are particularly acute. *Id.* Such pollution is respirable and causes a variety of potentially life-threatening illnesses. *Id.* Increased power generation leads to increased pollution emitted into the air or placed into landfills, including landfills in Greene and Washington counties. *Id*. The situation in Pennsylvania will be exacerbated by increased electric generation. *Id*.

TrAILCo did not address the impacts that the project will have on pollution, including air pollution, or any other impacts from the power generators that will transmit over the proposed line. Tr. 3264:22-3266:7.

E. <u>Brief Statement of Order or Other Determination Under Review</u>

The Public Utility Commission's Order of December 12, 2008 in this case approves TrAILCo's Application for a Certificate of Public Convenience to provide public utility service and to locate and construct the Pennsylvania 502 Junction Facilities, reversing the Recommended Decision of ALJs Nemec and Hoyer which recommended denial of the applications.

VI. SUMMARY OF THE ARGUMENT

Since 1978, electric utilities seeking to site High Voltage transmission lines in Pennsylvania have been required to demonstrate that the proposed transmission line is needed, that it does not create an unreasonable risk of danger to the health and safety of the public, that it complies with all applicable legal and regulatory standards protecting the natural resources, and that it minimizes harm to the environment when considering the electric power needs of the public and available alternatives. This standard, set forth in 52 Pa. Code §57.76, and promulgated pursuant to Article I, Section 27 of Pennsylvania's Constitution and applicable provisions of the Public Utility Code, 66 Pa.C.S., imposes on the Public Utility Commission a responsibility to ensure that transmission lines are not approved without a thorough review.

Yet, in this proceeding, the PUC approved the construction of a High Voltage transmission line without an appropriate application of the legal and regulatory standards adopted in 1978. In particular, in determining that there was a "need" for the facilities, the Commission erred in holding that 66 Pa.C.S. §2805 obligated the PUC to "enhance regional reliability and mitigate transmission constraints in order to reduce congestion for ratepayers in

Pennsylvania and adjacent jurisdictions" when 66 Pa.C.S. §2805 does not say this, and when "congestion" is an *economic concept* inapplicable to a determination of need[2].

The Commission's reliance on PJM's 2006 Regional Transmission Expansion Plan (RTEP) and its identification of the RTEP's projected reliability issues as a basis for a finding of need also constitutes error and results in a determination in violation of Article I, Section 27 of the Pennsylvania Constitution. This is so because the RTEP was developed for purposes that are at odds with Pennsylvania's mandate for review of transmission line applications in that it was not developed through an assessment of alternatives but, instead, was focused solely on transmission solutions to problems without consideration of environmental impacts and other available technologies and alternatives that might be less environmentally intrusive and potentially less costly. Yet the Commission relied on the RTEP despite its numerous failings as the basis for its determination of need.

Even more problematic is that the Commission effectively waived many of the requirements of 52 Pa. Code §§57.72, 57.75, and 57.76 in approving TrAILCo's Application, allowing TrAILCo to bypass the legally mandated evaluation of transmission line applications, which is designed to minimize the environmental and health and safety impacts of the project. Thus, TrAILCo did not assess the effect of the project on the health and safety of Pennsylvania's residents or evaluate and minimize the environmental impacts. Nor did TrAILCo describe the alternate routes it "considered" with enough particularity to distinguish between them or compare the relative merits of each of the alternate routes. ECC submits that it was fundamental

[2] Congestion is when the lowest cost electric generation cannot get to the load because of constraints in the system, and more expensive generation has to be used to service the load instead. Tr. 2505. As discussed below, relief of congestion may not have any effect on potential reliability issues (such as low voltages, or potential thermal overloads of a line it).

error and violative of the constitutional, and legal and regulatory standards, for the Commission to waive these requirements and issue a determination without consideration of this information.

The PUC erred in numerous critical respects and its decision approving the Pennsylvania 502 Junction Facilities must be reversed.

VII. ARGUMENT FOR APPELLANT

The Energy Conservation Council is a Pennsylvania non-profit organization consisting of over 1,600 members dedicated to, among other things, the conservation of energy and the preservation of the natural beauty, historical sites and structures, and the traditional rural and agricultural character of Pennsylvania. The ECC was a Protestant in the proceeding below.

The record in the PUC proceeding is immense. Administrative Law Judges Nemec and Hoyer presided over every minute of proceedings in this matter, including numerous public input hearings and site visits. They attended the evidentiary hearings where expert witnesses were cross-examined, and their credibility was evaluated. Judges Nemec and Hoyer, in a 239-page recommended decision dated August 15, 2008, properly concluded that TrAILCo did not meet its burden of proof on any issues – and recommended that TrAILCo's five pending applications be denied.

Rejecting 239-pages of well-reasoned analysis, the PUC granted TrAILCo's application for the proposed 502 Junction Facilities despite the fact that "[t]he ALJs applied the appropriate statutory and regulatory standards in their consideration of this matter". *See* Order at 29 - 32.

The PUC committed numerous legal errors in the process of granting TrAILCo's applications – namely (1) based its approval of the 502 Junction Facilities, or its rejection of alternative solutions to the alleged reliability issues, on an erroneous legal standard – i.e., that “this Commission has an obligation to … mitigate transmission constraints in order to reduce congestion for ratepayers in Pennsylvania and adjacent jurisdictions”; (2) confusing or equating “congestion” (an economic concept) with “need”; (3) improperly deferring to PJM’s 2006 Regional Transmission Expansion Plan rather than requiring compliance with Pennsylvania’s legal and constitutional requirements for high voltage transmission lines; and (4) ignoring the Pennsylvania Constitution and the Siting Regulations that required TrAILCo to examine alternate routes, assess the relative merits of such routes, and evaluate and minimize health and safety and environmental impacts[3].

Perhaps the PUC granted TrAILCo’s applications because of concerns about being overruled at FERC under the federal “backstop authority” contained in the 2005 Energy Policy Act. On August 8, 2005, President George W. Bush signed the Energy Policy Act of 2005, Pub. L. No. 109-58, 119 Stat. 594 (2005) (Energy Policy Act). The Energy Policy Act contains several provisions that relate to electric transmission facilities. It authorizes the Federal Energy Regulatory Commission (FERC) to issue construction permits for transmission projects (“backstop authority”) if certain conditions are met, one being that the proposed project is within a National Interest Electric Transmission Corridor[4]. Section 1221(C)(i), provides that “backstop” authority may only be invoked where a state agency has:

> withheld approval for more than 1 year after the filing of an application seeking approval pursuant to applicable law or 1 year after the designation of the relevant national interest electric transmission corridor, whichever is later.

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[3] PJM Interconnection (“PJM”) is a regional transmission organization (RTO) made up of its member organizations, including TrAILCo and Allegheny Power (a TrAILCo affiliate), that manages the electric grid and coordinates the movement of wholesale electricity in all or parts of 13 states and the District of Columbia.

[4] The Mid-Atlantic NIETC “corridor” includes 52 of Pennsylvania’s 67 counties, and significant portions of numerous other states. The entire proposed TrAIL line in Pennsylvania, West Virginia and Virginia, falls within this NIETC “corridor”.

Energy Policy Act, Section 1221(C)(i). Consistent with its new authority under the Energy Policy Act, FERC promulgated regulations interpreting the statutory provisions. Regulations for Filing Applications for Permits to Site Interstate Electric Transmission Facilities, 71 Fed. Reg. 69440 (Dec. 1, 2006), FERC Stats. & Regs. ¶31,234 at ¶37 (2006) (Final Rule). FERC's Final Rule provided clarification as to the actions that a state commission could take that FERC believed would enable it to exercise its backstop authority, specifically what the term "withheld approval" in Section 1221(C)(i) means:

> To this end, we believe that a reasonable interpretation of the language in the context of the legislation supports a finding that withholding approval includes denial of an application.

Final Rule, ¶26 (emphasis supplied).

But, after the PUC's Order, on February 18, 2009, FERC's interpretation that withholding approval includes denial of an application" was reversed by the Fourth Circuit. *Piedmont Environmental Council, et al. v. FERC, et al.*, 558 F.3d 304 (4th Cir. 2009). Now, if a public utility commission *denies* an application within one year from the date of the application, the decision cannot be appealed to FERC.

If the Fourth Circuit decision was issued a few months earlier, before the PUC issued its Order, perhaps the PUC would have adopted the findings of the ALJs in their entirety – and denied all applications relating to the 502 Junction Facilities. Unfortunately, we will never know the answer to this question. But one thing is clear - the PUC's Order is flawed. It contains numerous significant legal errors, and must be reversed.

A. Legal Principles Applicable to Review of Transmission Line Applications

Thirty years ago, the Commission established regulations to ensure that high voltage transmission lines were not approved until the applicant provided specific detailed information, public and evidentiary hearings were held, and the applicant proved, by a preponderance of the evidence, everything that the regulations required. 52 Pa. Code § 57.71, *et seq*.[5] At that time, the Commission noted the inadequacy of existing procedures, noting the following limitations in particular:

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

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

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

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

Re Proposed Electric Regulation, 49 Pa. P.U.C. 709, 710 (1976) (emphasis added). In this respect, the Commission pointed to Article I, Section 27 of the Constitution of Pennsylvania and Pennsylvania appellate court decisions **requiring it** to "ensure the protection of the environment

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

whenever the issue of damage to the environment is raised." *Id.* at 712. This responsibility, the Commission stated, "is met when the Commission determines that ***all*** applicable statutes and regulations relevant to the protection of the environment have been complied with, that a reasonable effort has been made to reduce the impact on the environment to a minimum, and that the environmental harm is clearly outweighed by the benefits to be derived from the facilities to be constructed." *Id.* *(emphasis added)*

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

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

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

"[O]nce the issue [of Article I, Section 27], is raised, the burden upon the applicant is intensified - and it *must* show that it has met the three-pronged test enunciated in *Payne v. Kassab*, 11 Pa. Cmwlth. 14, 29, 312 A.2d 86, 94 (Pa. Cmwlth. 1973), aff'd 323 A. 2d 405 (Pa. 1974). The three-pronged test requires the Commission to find 1) compliance with all applicable statutes and regulations relevant to the protection of the Commonwealth's public natural resources, 2) determine that the utility has demonstrated a reasonable effort to reduce the environmental incursion to a minimum, and 3) balance the environmental harm against the benefits of proceeding with the transmission line, **considering available alternative**

technologies, siting and other factors. *Re Proposed Electric Regulation,* 49 Pa. P.U.C. at 712 (emphasis supplied); *Re West Penn Power Co.*, 54 Pa. P.U.C. 319, 328 (1980)

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

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

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

52 Pa. Code §57.76(a).

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

B. The Commission's Application of Legal Principles To TrAILCo's Application

As noted above, the Commission, in its Order, reviewed the determination set forth in the ALJs Recommended Decision, a recommendation to reject TrAILCo's applications in their entirety. The Public Utility Commission, while rejecting the ALJs findings and conclusions with regard to the Pennsylvania 502 Junction Facilities, nonetheless found "the scope of their analysis was entirely appropriate and consistent with the applicable statutory and regulatory authority." Order at 30. In this regard, the Commission stated that "the ALJs properly examined issues such as the potential costs of green house emissions, DSM and energy efficiency alternatives and whether the proposal was built to facilitate west-to-east transfers of generation." *Id.* at 29.

Despite finding that the ALJs had applied a proper scope to their assessment and considered a range of appropriate issues, the Commission came to a different conclusion with respect to the Pennsylvania 502 Junction Facilities. In reaching a different result, the Commission gave the following reasons with respect to the "need" determination and the required consideration of "alternatives" pursuant to 52 Pa. Code §57.76:

> (1) The Commission was persuaded by TrAILCo's use of PJM's RTEP and the supporting testimony which detailed the system stress modeling and projections relating to future NERC standard violations. Order at 30, quoting TrAILCo Exc. at 14.
>
> (2) The Commission found that it had an obligation pursuant to 66 Pa.C.S. §2805 to enhance regional reliability and mitigate transmission constraints in order to reduce congestion for ratepayers in Pennsylvania and adjacent jurisdictions, finding that alternatives suggested by ECC are likely to impose "congestion costs on consumers" and that "the Pennsylvania 502 Junction Facilities will resolve all of the projected overloads in the southern portion of the Allegheny Power transmission zone in a cost-effective and timely manner."

Order at 31, citing TrAILCo M.B. at 21; TrAILCo St. 4 at 17-21.

(3) In reviewing alternatives, "the issue of costs is an important driver, as it should be," but that "there is insufficient cost certainty to outweigh the record evidence supporting the proposed Pennsylvania 520 Junction Facilities" and that "the transfer of generation from west to east in the distant future could just as easily be wind generation rather than coal generation." Order at 32.

(4) The Commission agreed that "economics was a consideration of TrAILCo in proposing the Pennsylvania 502 Junction Facilities, recognizing that the original TrAIL project was "a response to west-to east transfer enhancements" known as Project Mountaineer, but concluding that "one cannot easily distinguish between transmission efficiency projects and reliability projects within a congested region" and holding that "[t]here is nothing *inherently* wrong with removing reliability violations on a heavily congested line through construction of a new transmission line" Order at 32 (emphasis added)

While the Commission's decision goes on to state that the record *establishes* that the "Pennsylvania 502 Junction Facilities is needed to address reliability issues and is the best alternative available to achieve that result," (Order at 32) the Commission's decision is clearly based on (1) a misinterpretation of the law in finding that 66 Pa.C.S. §2805 "obligates" the PUC to "enhance regional reliability and mitigate transmission constraints" when it says nothing of the sort, (2) a misunderstanding of the record evidence in equating "congestion" with "reliability" when "congestion" is clearly an economic concept, (3) an improper emphasis on PJM's 2006 Regional Transmission Expansion Plan (RTEP) as justifying the "need" for proposed facilities when the reliability issues were identified in the RTEP without consideration of potentially lower-cost, less environmentally intrusive alternative fixes, and (4) the

Commission effectively waived the requirements of 52 Pa. Code §§57.72, 57.75, and 57.76 in approving TrAILCo's Application, allowing TrAILCo to ignore its obligations to assess and minimize the adverse effects on the environment, and human health and safety[6].

The Commission's decision is clearly violative of the law, including Article 1, Section 27 of the Constitution. By turning a "congestion" issue into a "need," the Commission has ignored the legal basis for its actions and approved the construction of a transmission line that produces fundamental risks to the health and safety of the public and the environment when the evidence completely failed to support the necessity of the line. Decisions such as this are not only violative of the law but, in reaching factual conclusions that are without a sound basis, they are arbitrary in nature and constitute a flagrant abuse of discretion. It is, for example, absurd for the Commission to state that the Pennsylvania 502 Junction Facilities provide the "best alternative" available to achieve that result when the Commission well knows that *no alternatives* to the transmission line were appropriately evaluated[7] and when the Commission itself says "we are concerned about the lack of alternative route descriptions and lack of discussion of the comparative merits of alternatives in general" and specifically requires better "alternative route descriptions and discussion of comparative merits of alternative routes" "in the future." Order at 39.

It is obvious that the Commission's "need" determination is one that is primarily focused on the economic issue of congestion and not, ECC submits, commensurate with the

[6] TrAILCo did not even describe the alternate routes it "considered" with enough particularity to distinguish between them, nor did it compare the relative merits of each of the alternate routes.

[7] ECC submits that appropriate evaluation of alternatives would require engineering and costing of alternatives, including non-transmission alternative fixes such as those identified by ECC. The mere suggestion of an alternative does not amount to evaluation of an alternative.

"need" determination required by 52 Pa. Code §57.76 or the Public Utility Code. Further, while focusing on "congestion" as the test to be applied to these facilities, the Commission placed the burden of proving "alternatives" on other parties and, in particular, ECC, stating that the "physical alternatives presented by ECC and discussed by the ALJs approach the problems in a piecemeal manner with no certainty that they will actually resolve the modeled problems." Order at 32. As discussed below, the Commission's decision in this respect shifts the burden of proof onto other parties to prove the workability of their alternatives, rather than, as appropriate, placing the burden of proof to evaluate and compare alternatives on the Applicant. 66 Pa.C.S. §315. Moreover, the Commission's language suggests that there is something wrong with individual "piecemeal" solutions to problems, regardless of cost or impact on the environment, as compared to an extremely costly transmission line with a huge environmental cost.

For reasons further discussed in detail below, ECC submits that the Commission's decision is fundamentally in error and must be reversed.

C. **The PUC Erred In Applying An Erroneous Legal Standard In Holding That 66 PA.C.S. §2805 "Obligates" the PUC to Enhance Regional Reliability and Mitigate Transmission Constraints In Order to Reduce "Congestion," In Finding That "Congestion" Was Interchangeable With "Reliability" And Supported A Finding Of "Need" For The Transmission Line, And In Rejecting Alternatives To The Line On Such Basis.**

The PUC committed its first fundamental error and violated the ECC's constitutional rights when it approved the 502 Junction Facilities, and rejected available alternatives, based on an erroneous legal standard - that "this Commission has an obligation to … mitigate transmission constraints in order to reduce congestion for ratepayers in Pennsylvania and adjacent jurisdictions." Order at 31, *citing* 66 Pa. C.S. § 2805.

This legal error is very similar to the PUC's legal error in the 1997 *PP&L* case, *supra*, 696 A. 2d 248 (Pa. Cmwlth. 1997), *appeal denied PP&L v. Pa.P.U.C.*, 553 Pa. 709, 719 A.2d 748 (1998).

In *PP&L*, the electric utility (PP&L) filed an application with the PUC requesting approval for the construction of a 69 kV transmission line to be located in Carbon County, Pennsylvania. *Id*. at 249. The PUC concluded that PP&L failed to demonstrate "need" from an "engineering" prospective, and thus denied PP&L's application. *Id*. at 250. PP&L appealed, claiming legal error because the PUC created "an erroneous threshold requirement of 'engineering need'" *Id*.

The Commonwealth Court agreed – the PUC did not apply the correct legal standard – and reversed the PUC's decision.

In this case, the PUC also applied the wrong legal standard, and its decision must be reversed. Specifically, in its Order, the PUC rejected the available alternatives of reconductoring, retensioning, or otherwise raising the height of the Mt. Storm – Doubs 500 kV line because "[t]his Commission has an obligation to enhance regional reliability and mitigate transmission constraints in order to reduce congestion for ratepayers in Pennsylvania and adjacent jurisdictions" and "alternatives, such as to improve clearance are likely to impose heavy congestion costs on consumers". Order at 31.

But the cited statutory provision, 66 Pa. C.S. § 2805, does *not* require or allow the Commission to approve proposed high voltage transmission lines to "mitigate transmission constraints in order to reduce congestion for ratepayers in Pennsylvania and adjacent jurisdictions."

Instead, § 2805 is part of the Electricity Generation Customer Choice and Competition Act. 66 Pa. C.S. § 2801, et seq. Simply put, the act deregulated electric generation. It attempts to allow fair, open, and non-discriminatory access to electric generation for Pennsylvania consumers and businesses. There is no mention of transmission constraints, or congestion, in the Electricity Generation Customer Choice and Competition Act.

Instead of "congestion", 66 Pa. C.S. § 2805 deals with regionalism, reciprocity, and open access. For example, 66 Pa. C.S. § 2805(a) requires the commission to:

- take all necessary and appropriate steps to encourage interstate power pools to enhance competition and to complement industry restructuring on a regional basis. 66 Pa. C.S. § 2805(a).
- work with the Federal Government, other states in the region and interstate power pools to accomplish the goals of restructuring and to establish independent system operators or their functional equivalents to operate the transmission system and interstate power pools. 66 Pa. C.S. § 2805(a).
- provide open, fair and nondiscriminatory access to all electric generation suppliers. 66 Pa. C.S. § 2805(a).

66 Pa. C.S. § 2805 does not require, or allow, the Commission to approve transmission lines to "mitigate transmission constraints in order to reduce congestion for ratepayers in Pennsylvania and adjacent jurisdictions." However, it *does* describe the Commission's obligations regarding "electric service" as follows:

> The commission, Pennsylvania electric utilities and all electricity suppliers ***shall*** work with the Federal Government, other states in the region, the North American Electric Reliability Council and its regional coordinating councils or their successors, interstate power pools, and with the independent system operator or its functional equivalent ***to ensure the continued provision of adequate, safe and reliable electric service to the citizens and businesses of this Commonwealth.***

66 Pa. C.S. § 2805 (a)(emphasis supplied).

Section 1501 of the Public Utility Code, 66 Pa.C.S. § 1501, contains a similar mandate: "[e]very public utility shall ... make all such repairs, changes, alterations, substitutions, extensions, and improvements in or to such service facilities *as shall be necessary or proper for the accommodation, convenience, and safety of its patrons, employees, and the public." PP&L*, 696 A.2d at 250 (emphasis in original)[8].

Finally, the siting regulations, quoted previously, require proof that the High Voltage transmission line is needed, will not create an unreasonable risk of danger to the health and safety of the public, is in compliance with statutes and regulations protecting the Commonwealth's natural resources and has the "minimum adverse environmental impact, *considering the electric power needs of the public, the state of available technology and the available alternatives." PP&L*, 696 A.2d at 250 (emphasis in original); 52 Pa. Code § 57.76(a).

Nowhere in any of the foregoing statutory or regulatory provisions, nor in any other regulations promulgated under the Code or cases interpreting the regulations, is there a provision that allows the Commission to reject available alternatives "in order to reduce congestion." Instead, what is required is:

> 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.

PP&L, 696 A.2d at 250 (emphasis supplied); 52 Pa.Code § 57.76(a).

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[8] Similarly, Section 15 Pa.C.S. § 1511(c) of the Business Corporation Law of 1988, provides that the PUC, upon application, must determine if a requested exercise of the powers of eminent domain by a public utility corporation *is necessary or proper for the service, accommodation, convenience or safety of the public. Id.* (emphasis in original).

Thus, if the environmental impacts are minimized by an alternative, even if that alternative causes some congestion costs, it must be chosen. Because the PUC committed a clear error of law on this issue, its decision should be reversed.

D. Relief of Congestion Does Not Qualify as a "Need" for New Facilities – Congestion Is An Economic Concept And Is Not Interchangeable with Reliability Issues

The Commission's error in holding that the line is necessary to address congestion issues is compounded by its equating the term "congestion" with "reliability" and "need." Nowhere in any of the statutory or regulatory provisions, nor in any other regulations promulgated under the Code or cases interpreting the regulations, is there a provision that allows the Commission to find that "reducing congestion" equates to a "need" for new facilities or that the term "congestion" is interchangeable with the term "reliability." *See, e.g., PP&L,* 696 A.2d at 250; 52 Pa.Code § 57.76(a). Moreover, the term "congestion" is clearly an economic term: "Congestion is the quantification of the fact that we are unable to run the cheapest generation at all times to serve all of the customers in PJM by virtue of transmission limitations on the system". Tr. 2505 (Testimony of TrAILCo witness Steven Herling).

This distinction between congestion and reliability is of critical importance because the only "need" for the line that TrAILCo *ever* pointed to, and that other parties addressed, was a "reliability" need. In fact, it became almost a mantra: the TrAIL line is "needed" for reliability. The TrAIL line is "needed" for reliability:

- The need for TrAIL was based on the 2006 Regional Transmission Expansion Plan. Tr. 2258.

- During the 2006 RTEP process, PJM did not have the authority to approve economic upgrades – just **reliability** upgrades. Tr. 2447-8 (emphasis supplied).

- The **reliability** criteria drivers for the project are set forth in Exhibit SWG-1. Tr. 2238, 2268, 2349, 2550 (emphasis supplied).

- "**This particular project <u>is not an economically driven project</u>. It is a reliability driven project**…" Tr. 2202 (emphasis supplied).

- "The 502 Junction to Loudoun project is based on one set of **reliability** drivers." Tr. 2210 (emphasis supplied).

- "…the 502 Junction to Loudoun line, which had one set of **reliability** drivers…" Tr. 2237 (emphasis supplied).

- The inclusion of the TrAIL project in the 2006 RTEP was "**motivated solely by reliability concerns**." Tr. 2500 (emphasis supplied).

- Q. And the **reliability** criteria drivers for the 502 to Loudoun line is a similar chart prepared by Mr. Scott Gass, and that's got 12 different items listed, correct?

  A. Yes.

  Q. And that's SWG-1, I believe; correct?

  A. Yes.

  Q. And those *remain the drivers* for the projects today; correct?

  A. Yes.

  Tr. 2238 (emphasis supplied).

Because "reliability" was the fundamental underpinning of TrAILCo's position that the line is "needed", if TrAILCo cannot prove "need" in terms of reliability, then its application must be denied.

Yet despite TrAILCo's own distinction between reliability issues and economic ones, *i.e. congestion*, the PUC's Order held that "one cannot easily distinguish between transmission efficiency projects and reliability projects within a congested region. Removing congestion resolves reliability violations, and *vice versa*." Order at 32.

If this project is, in fact, just desired for economic reasons, such as (1) the FERC-approved **12.7% guaranteed rate of return** for investments in this project, or (2) a desire to get more coal fired generation to eastern PJM markets (i.e., relieve congestion), then TrAILCo has not proven a "need[9]." TrAILCo's case was based entirely on reliability, not congestion, and the failure of proof as to reliability is the end-game for its proposed line.

Congestion is not the same as reliability. And, contrary to the PUC's Order, the record does *not* support the conclusion that relief of economic congestion "resolves reliability violations, and vice versa". Order at 31. In fact, the record supports the opposite conclusion.

Indeed, it is notable that the original TrAIL project was proposed to address congestion issues **before any reliability criteria infractions were identified**. Tr. 2288-2289[10]. *See also* ECC Cross Ex. 34 at attachment A. At that time, it was evident that **relief of congestion would not solve any reliability issues** - *because there were no reliability issues at the time*. Thus, relief of congestion does not mean that a reliability issue is resolved.

In addition, "[t]ransmission expansion is but one possible solution to a congestion or constraint problem. Other potential solutions include increased demand response; improved

[9] No matter what the level of transmission service sales, TrAILCo will receive its authorized rate of return on the capital investments associated with the projects. Tr. at 3015-16. The incentive rate of return associated with TrAIL is 12.7%. Tr. at 3018. The incentive rates of return include "adders" that take into consideration such factors as the length of the line and the level of difficulty involved in construction. Tr. at 3019. TrAILCo will also receive a 50 basis point "adder" for joining and remaining a member of a regional transmission organization. Tr. at 3019.

[10] Allegheny Power proposed the original TrAIL project to PJM on February 28, 2006, as a response to "Project Mountaineer". Tr. 2289-90; ECC Cross Ex. 34, attachment A at 2. Project Mountaineer was unveiled by PJM's Carl Pffirman at a FERC technical conference in May 2005. Project Mountaineer's goal was to transmit 5,000 megawatts of new coal-fired generation from western to eastern PJM. Tr. 2290-91. At least two extra high voltage transmission lines were required to support the delivery of this much electricity. Tr. 2292. Project Mountaineer was an *economic* project, not a reliability-based project.

energy efficiency; deployment of advanced technology; and siting of additional generation, including distributed generation, close to load centers." RD at 104; National Electric Transmission Congestion Report, 72 Fed. Reg. 56992, 56993-56994 (October 5, 2007). Thus, congestion can be relieved in many different ways – ways which may not have any effect on transmission reliability issues.

The PUC's finding that relieving congestion and resolving reliability issues are effectively two sides of the same coin and, therefore, both support the Commission's finding of "need" constitutes an error of law and is not supported by evidence in the record. Consequently, the PUC's Order fails to find a "need" for the facilities, as that term is appropriately defined, and the Commission's Order must, therefore, be reversed.[11]

E. The Public Utility Commission Committed Errors of Law In Relying on PJM's RTEP As Establishing a "Need" For Facilities When The RTEP Merely Considers PJM's Planning Goals, Proposes a Single Solution, And Does Not Address Pennsylvania's Legal and Regulatory Requirements, and In Particular the Mandates of 52 Pa. Code §57.76, Which Requires Consideration Of Less Intrusive Available Alternatives As A Means of Reducing Environmental Impact.

1. Introduction

[11] The PUC also indicated that new transmission is a necessary byproduct of Pennsylvania's advancement toward being a national leader in renewable generation, and that the transfer of generation in the "distant future" could just as easily be wind generation rather than coal generation." Order at 32. Three points on this. First, there is no evidence in the record that the TrAIL line is for wind. Nothing at all. What the PUC is talking about is the "distant future." Second, if there is a future Pennsylvania legislative mandate to obtain a certain percentage of electricity from renewable generation such as wind, and a new transmission line is "needed" to get this generation to the load, then the PUC may be justified in finding that this future line is "needed." Currently, however, there is no legislative mandate to increase the amount of coal fired generation upwind of Pennsylvania (in Ohio and West Virginia). Approving a line that is desired for such a purpose, instead of one that is needed for reliability reasons, would undercut "Pennsylvania's advancement toward being a national leader in renewable generation." Third, the proposed TrAIL line cannot be approved for the completely speculative possibility that, in the "distant future", the TrAIL line might possibly be used to transfer wind energy from the west to the east. If the PUC approved the line for this reason, it is clear error. The PUC cannot approve a high voltage line for the completely speculative possibility of a future use that has absolutely no support in the record.

As noted above, before granting an application, the Commission must determine that not only is there a need for new transmission facilities, but that the proposed solution is reasonably responsive to or **proportionate** to the need[12]. After considering the available alternatives and the current state of technology, the line must have minimal adverse impact on the environment, and must not pose an unreasonable risk to the health or safety of the public. 52 Pa. Code § 57.76(a); *PP&L*, 696 A.2d at 250.

However, PJM's RTEP and its proposal for transmission solutions to system problems, which the Commission turns to in evaluating reliability and need, does not address Pennsylvania's legal and regulatory standards – it simply attempts to determine if there is a transmission solution to a system problem, without assessing alternatives, other available technologies, or environmental impact. The RTEP can, thus, only be one input into an evaluation under Pennsylvania law. Yet, despite its limited usefulness, the Commission's determination to approve the Pennsylvania 502 Junction Facilities is entirely based on PJM's Regional Transmission Expansion Plan. By deferring to PJM, the PUC committed legal error – it did not require compliance with the appropriate Pennsylvania legal standards and constitution.

ECC would emphasize that the RTEP does not evaluate **<u>any</u>** of the environmental or health and safety impacts of a proposed reliability project – only whether it will solve alleged reliability issues. The RTEP makes no attempt to pick a project that has "**minimum adverse environmental impact**, considering the electric power needs of the public, the state of available technology and the available alternatives" or one that "**will not create an unreasonable risk of danger** to the health and safety of the public." 52 Pa. Code §57.76(2) and (4). There is also no

[12] *Re Pennsylvania Power & Light Co.*, 50 Pa. P.U.C. 480, 484 (1977); *Re West Penn Power Co.*, *supra*, 54 Pa. P.U.C. at 320-327 (1980) (the electric utility must prove a need for the line, that it will not pose a danger to the health and safety of the public, that environmental incursion has been kept to a minimum, that the project is reasonable in scope, *and that alternatives to the line have been adequately considered).*

assessment of whether the project is proportionate to the need – just whether it solves the alleged reliability issues.

In addition, the RTEP ***did not evaluate <u>any</u> non-transmission alternatives.*** Tr. 2259. It did not properly investigate upgrades or repairs to existing transmission facilities. Furthermore, the RTEP itself suffered from numerous shortfalls that made it an inappropriate basis for evaluating "need." These failures went across the board in that the RTEP modeling process is unrealistically conservative, existing and planned generators were *ignored* in the modeling, it did not consider the costs and benefits of the alternatives, and the relative environmental impacts of the proposed facilities were not evaluated. Instead, the RTEP was focused on providing a single transmission solution to a range of problems that might or might not occur. The TrAILCo project may well have been PJM's wish, but that wish did not reflect an appropriate assessment of the requirements that would need to be met, and can be met, with safer and less environmentally intrusive alternatives.

In addition to ignoring existing and planned generation in its modeling studies (which would eliminate the need to build *anything*), TrAILCo and PJM ignored critical alternatives that could eliminate the need for the 502-Loudon line, including (1) individual fixes to the alleged reliability issues that could eliminate the entire need for the $1.1 billion line and associated facilities, (2) conservation, (3) using "transmission-constrained dispatch," (4) an HVDC line, (5) the effect of the planned 765 kV PATH line, and (6) demand side management (or <u>any</u> other non-transmission solution).

2. <u>The PUC Found a Need for the Proposed Facilities Based on PJM's Regional Transmission Expansion Plan, A Plan That Did Not Make Any Attempt to Comply With Pennsylvania's Constitutional, Statutory or Regulatory Provisions Requiring the Assessment and Minimization of Environmental and Health and Safety Impacts</u>

The PUC held that "TrAILCo has met its burden of proving a need for the Pennsylvania 502 Junction Facilities consistent with the showing required by Section 1501 of the Code and our Regulations at 52 Pa. Code § 57.76(a)(1)." Order at 30.

> We are persuaded by TrAILCo's use of PJM's RTEP and the supporting testimony which detailed the system stress modeling and projections relating to future NERC standard violations. *See, e.g.,* TrAILCo Ex. SWG-1, relating to twelve projected occurrences resulting in NERC standard violations. *Id*.

The PUC's reliance on PJM's RTEP process to demonstrate compliance with Pennsylvania's constitution, statutes and code provisions, however, is legal error.

PJM's Steven Herling testified that, for reliability driven projects such as this one, PJM merely identifies "the most effective solution to the reliability problems" and "[t]he responsibility for dealing with routing issues and environmental issues falls to the transmission owner." Tr. 2202[13].

> [O]ur ability to implement the transmission plan is based on first <u>identifying the most effective **transmission** solution to the reliability needs</u> of the region, and *then* we will work with the transmission owners to *implement that plan* in a most effective way that respects routing needs and environmental needs. Tr. 2203.

Significantly, PJM <u>only</u> looks for (1) a transmission solution, (2) that solves a reliability issue; and (3) only *after* a project is approved does the transmission owner (in this case TrAILCo) look at environmental issues for purposes of implementing that plan. PJM doesn't even try to comply with state law:

> Q. But **PJM <u>doesn't make any efforts</u>** at PJM to insure that **state laws** regarding what **alternatives** need to be looked at or what **environmental issues or impacts** need to be assessed, that's something that PJM doesn't do itself, it leaves that to the transmission organization that is going to be building the line to deal with those issues and to deal with those impacts; right?

[13] "This particular project is a reliability driven project, so we identify the most effective solution to the reliability problems…[t]he responsibility for dealing with routing issues and environmental issues falls to the transmission owner." Tr. 2202.

A. **That's correct**.

Tr. 2337 (Testimony of PJM's Steven Herling).

The limitations of the RTEP modeling are similar to the "engineering need" limitation discussed above with respect to the *PP&L* case, *supra*. The RTEP is a regional transmission organization's plan to address engineering and deliverability issues on its system, but it is not a measured evaluation of the costs and benefits of different alternatives, an assessment of environmental implications, or a determination of what is best or "*necessary or proper for the accommodation, convenience, and safety of its patrons, employees, and the public.*" *PP&L*, 696 A.2d at 250 (emphasis in original).

An examination of Pennsylvania's legal and regulatory standards provides a much different perspective than is produced by the RTEP. Looking at the relevant Code provisions, specifically (1) Section 1501 of the Public Utility Code, 66 Pa.C.S. § 1501; (2) the siting regulations at 52 Pa. Code §57.71, *et seq*.; and (3), Section 15 Pa.C.S. § 1511(c) of the Business Corporation Law of 1988 (for eminent domain issues) forces a wider balancing of appropriate factors. In particular, Section 1501 of the Public Utility Code, 66 Pa.C.S. § 1501, requires "[e]very public utility shall ... make all such repairs, changes, alterations, substitutions, extensions, and improvements in or to such service facilities *as shall be necessary or proper for the accommodation, convenience, and safety of its patrons, employees, and the public.*" *PP&L*, 696 A.2d at 250 (emphasis in original).[14] This compels a broader public interest evaluation and standard.

[14] Similarly, Section 15 Pa.C.S. § 1511(c) of the Business Corporation Law of 1988, provides that the PUC, upon application, must determine if a requested exercise of the powers of eminent domain by a public utility corporation *is necessary or proper for the service, accommodation, convenience or safety of the public. Id.* (emphasis in original).

PJM's RTEP also fails to address the key standards from the siting regulations as detailed above, examining only "engineering need" and only from a transmission operator's perspective, and ignoring other critical requirements, i.e.:

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

52 Pa. Code § 57.76(a); *PP&L,* 696 A.2d at 250.

In addition, even a finding of an engineering need does not mean that a "need" under 52 Pa. Code § 57.76(a)(1) has been established. If a non-transmission alternative can solve the alleged reliability issue, there is then no "need" to build a proposed high voltage transmission line. Or, if a lower voltage transmission line can fix the alleged reliability issue, again there is no "need" for a high voltage line under 52 Pa. Code § 57.76(a).

The fact that the RTEP process also makes no attempt to determine if the proposed solution is proportionate to the need means that the RTEP process does not establish "need" under Pennsylvania law.

As in *PP&L*, the fact that the Commission relied exclusively on PJM's RTEP, which only examines transmission solutions and evaluates only the "engineering need" for such facilities, and does so without required consideration of alternatives, requires reversal of the Commission's decision.

3. The PUC's Conclusion That Alternatives To The TrAILCo Project Are Piecemeal In Nature Reflects The Absence of Commission Evaluation Of Alternatives, A Lack of Familiarity With The Record, and Reflects the PUC's Effort To Shift the Burden of Proving Alternatives to Other Parties, Rather Than Placing It Squarely On The Applicant Where It Belongs.

The Commission Erred In Its Finding That The 12 Reliability Issues Identified In Support Of The Line Were Supported By The Record.

Contrary to the PUC's conclusion that "[t]he physical alternatives presented by ECC and discussed by the ALJs approach the problems in a piecemeal manner with no certainty that they will actually resolve the modeled problems" (Order at 32), TrAILCo's witnesses have **admitted** that all 12 of the alleged electrical occurrences purporting to support TrAILCo's application for the 502-Loudoun line have alternative fixes. While they may not be a "global" solution, they are solutions that work and produce a significantly lesser impact on the environment, and should have been adopted by the Commission. In accordance with 52 Pa. Code §57.76(a)(4), the Commission does not have the discretion to reject a solution that has less of an impact on the environment while meeting the electric power needs of the public.

Indeed, TrAILCo and PJM admitted that they did not look for individual solutions that could solve the alleged individual reliability issues. Instead, they looked for a global solution. Tr. 2602. Thus, for example, TrAILCo and PJM did not look at the Mt. Storm-Greenland Gap contingency, a stretch of only several miles, to determine if that alleged contingency could be eliminated without installing a new 500 kV line. Tr. 2602, 2626-2628.

Justification for the proposed 502-Loudoun line comes from the 2006 RTEP process. Tr. 2237-2238. The base case used in the 2006 RTEP modeling remains the appropriate base case to use. Tr. 2597. The reliability criteria drivers for the 502-Loudoun line are set forth in the chart prepared by Scott Gass as Exhibit SWG-1. Tr. 2238.

TrAILCo Exhibit SWG-1

<table>
<tr><th></th><th>Electrical Occurrence</th><th>Electrical Result</th></tr>
<tr><td>1</td><td>Outage of Mount Storm – Greenland Gap Line #572A.</td><td rowspan="8">Mount Storm – Doubs 500 kV line #512 exceeds its emergency rating and overloads.</td></tr>
<tr><td>2</td><td>Outage of Meadow Brook – Greenland Gap Line #572B.</td></tr>
<tr><td>3</td><td>Outage of Hatfield – Black Oak 500 kV line #542.</td></tr>
<tr><td>4</td><td>Outage of Bedington – Black Oak 500 kV line #544.</td></tr>
<tr><td>5</td><td>Outage of Mount Storm – Greenland Gap 500 kV line #572A while Possum Point Unit #5 is unavailable.</td></tr>
<tr><td>6</td><td>Outage of Meadow Brook – Greenland Gap line #572B while Possum Point Unit #5 is unavailable.</td></tr>
<tr><td>7</td><td>Outage of Hatfield – Black Oak 500 kV line #542 while Possum Point Unit #5 is unavailable.</td></tr>
<tr><td>8</td><td>Outage of Bedington – Black Oak 500 kV line #544 while Possum Point Unit #5 is unavailable.</td></tr>
<tr><td>9</td><td>Outage of Hatfield – Black Oak 500 kV line #542.</td><td>Mount Storm – Pruntytown 500 kV line #510 exceeds its emergency rating and overloads.</td></tr>
<tr><td>10</td><td>Outage of Morrisville – Meadow Brook 500 kV line #580 and the Meadow Brook – Greenland Gap line #572B.</td><td>The 138 kV system voltage level around Meadow Brook Substation drops below acceptable limits and could lead to a voltage collapse in the area.</td></tr>
<tr><td>11</td><td>Outage of the Hatfield – Black Oak 500 kV line #542 and Mount Storm – Doubs line #512.</td><td rowspan="2">The 500 kV and 138 kV system voltage levels around Meadow Brook Substation drops below acceptable limits.</td></tr>
<tr><td>12</td><td>Outage of the Black Oak – Bedington 500 kV line #544 and Mount Storm – Doubs line #512.</td></tr>
</table>

However, the twelve alleged electrical occurrences in SWG-1 do not support construction of the proposed 502-Loudoun line. Electrical occurrence 9 is not expected to occur until 2014 and, as discussed below, the alleged overload would be resolved by another PJM-planned extra high voltage line. Electrical occurrences 10-12 can be resolved several different ways – without constructing a 500 kV line. Thus, electrical occurrences 1-8 are really driving the alleged need to construct the 502-Loudoun line by 2011. But they can also be resolved *without* constructing a 500 kV line.

Electrical Occurrences 1-8 (Line Rating Of Mt. Storm-Doubs 500 kV Line) Can Be Resolved Without Building the 502-Loudoun Line.

Electrical occurrences 1-8 on Mr. Gass' chart SWG-1 all involve exceedences of the Mt. Storm-Doubs summer emergency rating of 2,598 MVA. Tr. 2577; ECC Cross Ex. 29 at 3. If that line rating is raised by six or eight percent, there are no overloads. Tr. 2577.

TrAILCo witness Scott Gass, in his rejoinder testimony, indicated that the worst overloads of the Mt. Storm-Doubs line under any of the contingencies in SWG-1 was only 156 MVA above the 2,598 MVA line rating. *See* 4-RJ at 4-5. Thus, if the line rating could be raised by only 156 MVA – to 2,754 MVA – all overloads would be eliminated.

The emergency rating of the Mt. Storm-Doubs line (2,598 MVA) is primarily limited by ground clearance. Tr. 2331. In the 2006 RTEP process, there was no investigation regarding whether measures could be taken to improve the ground clearance and raise the conductor's emergency rating. Tr. 2425-2426. There was no attempt to increase the line rating during, or after, the 2006 RTEP process. Tr. 2579-2580. The possibility of *retensioning* the lines was not explored in the 2006 RTEP process. Tr. 2426.

The Mt. Storm-Doubs line can be retensioned, with a 30-week outage, to raise the rating to 2,910 MVA. TrAILCo 20-RJ at 3:18-4:10. Grading and raising of the towers can also increase the emergency rating to 2,910 MVA with only 17 weeks of outage time. TrAILCo 20-RJ at 3:18-5:18.

Because alleged electrical occurrences 1-8 on SWG-1 can be eliminated by raising the line rating of the Mt. Storm-Doubs line to 2,754 MVA or higher, and because this can be accomplished with less environmental impact, the PUC's Order errs in finding a need for the TrAIL line and its decision must be reversed.

Electrical Occurrences 5-8 Were Not Established Because the RTEP Did Not Appropriately Apply Test Criteria In Performing The Dominion Contingency.

In addition to being resolved by raising the line rating as discussed above, electrical occurrences 5-8 were also based on invalid testing criteria which makes these projected occurrences highly unlikely. Electrical occurrences 5-8 are alleged infractions of a Dominion Virginia transmission planning test. Tr. 2573. The Dominion test criteria requires, before running any contingency evaluations, shutting off the most critical generating facility in Dominion's system – the 700 megawatt Possum Point No. 5 generating unit. Tr. 2575-2576. The Dominion test criteria then requires a proportional increase of generation *within* Dominion's territory. Tr. 2575. However, former PJM employee Scott Gass admitted that PJM proportionally increased generation *throughout PJM* to make up for the loss of that generator. Tr. 2576. Thus, PJM did not run the test properly, and no one from Dominion testified in this proceeding to validate the results. *See, e.g.*, Tr. 2576-2577.

In addition, ECC witness Loehr testified that a proportional increase of generation to make up for the shutting-down of the Dominion generator at Possum Point is inappropriate. ECC SR-1 at 23:1-12.

> If you have a problem with overloads on west-to-east transmission, and you are studying the outage of a large eastern generator, you do not increase generation proportionally across the entire system, *including in the west* – obviously, that will only make things worse. The correct approach would be to use transmission constrained dispatch, and increase generation only in the east. In my opinion, such an approach would have prevented all of the violations alleged.

Id. Thus, alleged electrical occurrences 5-8 on SWG-1 cannot be relied upon to support construction of the 502-Loudon line.

Occurrence 9 (Alleged Overload Of Pruntytown-Mt. Storm Line).

Because electrical occurrence 9 involves an alleged overload of the Pruntytown-Mt. Storm 500 kV line in 2014, it cannot justify construction of the 502-Loudoun line by 2011. Tr. 2580. TrAILCo has offered no testimony that electrical occurrence 9, in and of itself, requires the construction of the 502-Loudoun line. Tr. 2581. In addition, another proposed extra high voltage line is intended, among other things, to resolve an overload on the same line – the Pruntytown-Mt. Storm line. Tr. 2353; ECC Cross Ex. 21 at 3 and Ex. 23. Thus, alleged electrical occurrence 9 on SWG-1 cannot be relied upon to support construction of the 502-Loudon line.

Occurrences 10-12 (Alleged Voltage Issues At Meadow Brook).

Electrical occurrences 10-12 in SWG-1 are voltage issues in the Meadow Brook area. Tr. 2301-2. PJM and TrAILCo have determined that there are alternative fixes to these alleged voltage issues that do not require building a 500 kV line. Tr. 2582-2583. In fact, if electrical occurrences 1-9 did not exist, a 500 kV line would not be needed to deal with the voltage issues at Meadow Brook. Tr. 2583.

A static var compensator at Meadow Brook would fix the voltage issues alleged in occurrences 10-12. Tr. 2322, 2583. A static var compensator at Meadow Brook would cost approximately $35 million dollars. Tr. 2583. However, because the newly-proposed 500 kV line was going to run right past the Meadow Brook substation, instead of installing a static var compensator, PJM approved a tie-in to the Meadow Brook area from the proposed 500 kV line at a cost of approximately $20 million. Tr. 2583-2585.

Electrical occurrences 10-12 will also be resolved if the planned CPV Warren gas-fired generating facility near Meadow Brook is installed by 2011. Tr. 2583-2584. After leaving PJM, TrAILCo witness Scott Gass worked as a consultant for CPV through most of 2007. Tr. 2613. At that time, CPV's projected in-service date for the CPV Warren gas-fired generating facility was June 1, 2011. Tr. 2613-14. As of August 15, 2007, Scott Gass believed that if CPV Warren was installed by June 1, 2011, it would resolve electrical occurrences 10-12. Tr. 2613-2617.

TrAILCo witnesses have admitted that electrical occurrences 10-12 on SWG-1 do not require construction of a 500 kV line, and that there are at least two viable options to resolve the alleged voltage issues at Meadow Brook. Thus, electrical occurrences 10-12 on SWG-1 do not support construction of the 502-Loudon line.

In summary, as evidenced by the testimony of TrAILCo's own witnesses, <u>none</u> of the 12 alleged electrical occurrences on SWG-1 justify construction of the 502-Loudoun line, and the Commission, therefore, erred in finding that the transmission line is needed in the face of less environmentally intrusive alternatives to meet the system's electric power needs.

4. <u>The Commission Erred In Not Finding That TrAILCo's Failure to Appropriately Evaluate Non-Transmission Alternatives Prevented It From Finding That TrAILCo's Proposed Transmission Facilities Were Needed.</u>

As noted above, the RTEP failed to consider non-transmission alternatives. Indeed, a significant admission at the evidentiary hearings was the fact that ***non-transmission solutions were not considered.*** The <u>only</u> solutions considered for the alleged reliability issues were <u>transmission</u> solutions. Tr. 2259. ECC submits that it is plain error for the Commission to find that a "need" for High Voltage transmission facilities exists when the utility has not evaluated possible non-transmission alternatives to the transmission facilities. ECC submits that that is the plain definition of need.

Indeed, at the evidentiary hearings, TrAILCo and PJM admitted that they have no "Plan B" for the 502-Loudoun line. Tr. 2286, 2601-2602. TrAILCo and PJM **will only look for alternative solutions *if* the 502-Loudon line is not approved.** Tr. 2286.

How can the Applicant have proven a "need" for the proposed facilities when they did not look at <u>any</u> non-transmission alternatives?

How can the Applicant establish that they minimized environmental impacts, or that they considered the "available alternatives," when they did not look at <u>any</u> non-transmission alternatives? The Commission committed errors of law, and violated Article I, § 27 of the Pennsylvania Constitution, by not requiring TrAILCo to consider non-transmission alternatives such as existing or planned generation in the east, improvements to existing facilities, demand side management, energy efficiency, and/or individual fixes to the alleged reliability issues, as discussed above.

The fact that these non-transmission alternatives are available, and should have been considered, is evidenced by the PUC's Order regarding another proposed project. For the Prexy Facilities, the Commission approved a settlement agreement that requires TrAILCo to "consider alternatives such as demand side management, energy efficiency, and improvements to existing facilities…" *See* Order at 31.

5. <u>The PUC Erred In Failing To Recognize That Transmission Constrained Dispatch Is Another Alternative That Would Eliminate The Need For The Line</u>

ECC expert witness George Loehr testified that transmission constrained dispatch would eliminate the reliability issues. The reliability problems allegedly requiring the 502 Junction facilities can be solved by *decreasing* generation in the west and *increasing* generation and/or demand side management in the east. ECC 1 at 21. This is permissible under the NERC standards. ECC SR-1 at 20.

Using "transmission constrained dispatch" or "out of merit" generation will result in a system without reliability infractions. ECC 1 at 21; ECC SR-1 at 11-12, 20 and 23. The procedure works as follows – if there is a reliability problem involving transmission lines from one part of a system to another, you increase the output of generating resources in the "downstream" part of the system, and decrease it in the "upstream" portion. ECC SR-1 at 11-12. In effect, you displace upstream (in this case western) generation with downstream (eastern) generation. This may not be the most economic dispatch, (i.e., you may be using more costly or "out of merit" generation) but it avoids reliability problems. *Id*. This can eliminate the need for new transmission lines, *without* violating reliability standards. *Id*.

In fact, PJM uses "transmission constrained dispatch" when operating its transmission system, but not when planning for new lines. Tr. 2207-2208. Using transmission-constrained dispatch, in conjunction with selected installation of reactive power resources, will solve all of the reliability problems that allegedly support the 502-Loudoun line. ECC SR-1 at 23.

Significantly, TrAILCo witnesses have admitted that transmission constrained dispatch can be used to prevent the electrical occurrences that are driving the alleged need for the 502-Loudoun line:

> Mr. Herling argues that "congestion" limitations are so common that it's impossible to take major 500 kV lines like Mt. Storm-Doubs out of service for something like reconductoring – **PJM, he says, would have to run "out of merit" generation … over the five years it would take**. But this case is supposed to be about reliability, not economics. Nevertheless, what Mr. Herling inadvertently admits is that *there is sufficient generation in the east to displace western generation* and reduce the flow on the west-to-east bulk power transmission system. His statement actually supports our contention that the use of out of merit generation, or transmission constrained dispatch, can solve the alleged reliability problems without the need to build the 502 Junction-Loudoun 500 kV line.

ECC SR-1 at 20; Tr. 2670-1 (emphasis added). This testimony means that there is no need to build the 502-Loudoun line for reliability reasons, because there is sufficient eastern generation that can be run to eliminate the alleged overload on the Mt. Storm-Doubs line.

Indeed, the record reflects that, in its 2006 modeling studies, which served as the basis for the alleged need for TrAIL, PJM and TrAILCo *ignored existing generation* that could eliminate the alleged overloads.[15] More than 2,800 MW of existing capacity in eastern PJM was not dispatched in the 2006 RTEP modeling process. ECC St. SR-l at 10; ECC Main Brief at 48-49; Tr., 2414. Dispatching just a portion of the unused capacity, and reducing western generation by an equal amount, would remove the alleged reliability infractions. *Id*.

In addition to not fully dispatching 2,800 MW of existing generation, PJM and TrAILCo also excluded some existing and planned generation from the 2006 modeling. PJM and TrAILCo did not include six or seven generators in eastern PJM to resolve reliability problems, despite the fact that they had signed interconnection agreements with Dominion. RD at 92; Tr. 2319-21, 2414; ECC Cross Ex. 7[16]. If the aforementioned generation in the Dominion system were included in the modeling for the purpose of resolving alleged reliability problems, there would be no need to import power from west of Doubs, and overloading of the Mt. Storm-Doubs line would be avoided. ECC 1 at 21; SR-1 at 11-12, 20 and 23.

6. The PUC Erred In Failing To Recognize That The RTEP's Exclusion of the 765 kV PATH Line In The RTEP Model and Other Modeling Errors Made The RTEP Model Unreliable And Resulted In Ignoring Other Alternatives.

[15] In addition, PJM's modeling tests are more rigorous than NERC requires. TrAILCo St. 3 at 11:7-9; OCA St. 1 at 24-26.

[16] At least 2,125 MW of generation in Dominion's territory, and possibly 2,465 MW, with signed interconnection agreements with Dominion, was not counted. Tr. 2624-6; ECC Cross Ex. 7; ECC SR-l at 11. In the same 2006 modeling process, PJM included some western generation that did not have signed interconnection agreements for the purpose of *contributing* to problems. *Id*.

When the 2006 RTEP process was performed, the "PATH" line was not included in the modeling[17]. Tr. 2564, 2295-2296. Significantly, in this proceeding, TrAILCo offered no testimony that the system was studied for the various contingencies that are driving the alleged need for the TrAIL line *with* the PATH line in service. ECC SR-1 at 15.

Even if the proposed PATH project could not, by itself, adequately correct all of the TrAIL-related alleged reliability problems, it at least should be studied to see if any modifications could be made that would solve them. ECC SR-1 at 15. One of the issues the PATH line is intended to resolve is a potential overload of the Pruntytown-Mt. Storm line - occurrence 9 in Exhibit SWG-1. Tr. 2352-2353. The resolution of this overload also makes two previously-rejected alternatives to the 502-Loudoun line suddenly viable again.

Two transmission alternatives to the 502-Loudoun line reviewed by PJM in 2006 were 1) adding a second Mt. Storm-Doubs 500 kV line, or 2) adding a new Mt. Storm-Loudoun 500 kV line. ECC Cross Ex. 1. These alternatives were rejected because they resulted in thermal overloads of the Pruntytown-Mt. Storm 500 kV circuit. *Id.* As set forth above, the PJM-approved PATH line is intended to address overloads on the Pruntytown-Mt. Storm 500 kV line. Thus, a second Mt. Storm-Doubs 500 kV line <u>or</u> a Mt. Storm-Loudoun 500 kV line could resolve the remaining reliability criteria infractions, if any, that allegedly require construction of the 502-Loudoun line. *Id*. PJM has not analyzed whether a second Mt. Storm-Doubs 500 kV line would then eliminate the alleged need for the 502-Loudoun line. Tr. 2352-3.

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[17] The Potomac-Appalachian Transmission Highline ("PATH") line was approved by PJM a part of its 2007 RTEP process. ECC Cross Ex. 21. It is a 765 kV line that is to run from the Amos 765 kV station in southwestern West Virginia to Bedington in West Virginia, and, from there, twin circuit 500 kV lines will extend to a new station at Kemptown, Maryland. Tr. 2461. The PATH line is to run <u>generally parallel</u> to the TrAIL line**.** Tr. 2354.

Since the PATH project is proposed to come in service only one year after the 502-Loudoun line, ignoring it in assessing the need for TrAIL shows very poor planning. ECC SR-1 at 15.

7. <u>The PUC Erred In Failing To Consider, As An Alternative, High Voltage Direct Current Lines (HVDC).</u>

TrAILCo did not evaluate, or even mention, an HVDC line from 502 Junction, or some other western location, all the way to Loudoun, Virginia where the new line is to end. If a reliability issue could be proven, an HVDC option would be both logical and potentially cost-competitive. ECC SR-1 at 17. The lack of any discussion of this rather obvious option is puzzling. The HVDC option would have smaller towers, shorter insulator strings, and two conductors rather than three. *Id.* It would even be feasible to place it underground. In addition, there may be less I^2R losses (electricity lost as heat) than with the proposed 500 kV lines. *Id.* And the lines would be safer, because HVDC lines do not generate magnetic fields. *Id.*

8. <u>The PUC's Reliance on the RTEP, Is Driven By Unsupported Testimony of PJM Witness Herling That He Himself Contradicted.</u>

The PUC's reliance on PJM's RTEP is misplaced for numerous reasons, in addition to the fact that it fails to address applicable standards and does not consider alternative solutions. For example, the PUC rejected the ALJs' conclusion that generation redispatch was a possible solution to problems that had not been explored by TrAILCo or PJM, based on unsupported suggestions in brief and testimony submitted in Rejoinder, that this solution was inconsistent with past operations and would produce a "whole host of operational conditions." In this respect, the PUC stated:

> The RD erroneously rejected the correct application of operating and testing criteria that have been applied consistently in PJM system for many years and adopted an incorrect application of those criteria. [TrAILCo M.B. at 9-16; TrAILCo R.B. at 10-13.] As PJM Vice President Herling testified, ECC's suggestion (which the RD adopted) that no criteria violation exists so long as

> there is some combination of redispatch available anywhere within PJM only invites a whole host of operational conditions that would not be controllable without load shedding. [TrAILCo M.B. at 29; TrAILCo St. 3-RJ at 13-14.]

Order at 30-31.

Despite these statements, there is no proof on the record that the lack of the proposed new facilities would "invite a host of operational conditions that would not be controllable without shedding customer load" – other than Mr. Herling's unsupported statement, 3-RJ at 14[18]. None of the load flow studies demonstrated a need for load shedding. PJM and TrAILCo did not even model load shedding.

Most important, however, is the fact that **Mr. Herling <u>contradicted</u> the above testimony at the expert evidentiary hearings**. On cross, Mr. Herling testified that an existing, and heavily used, west-to-east transmission line (the 500 kV line from Mt. Storm to Doubs) could be taken out of service for portions of five years although causing some congestion costs in eastern PJM. Tr. 2269-70. *See also* ECC SR-1 at 20.

How can the failure to install the 502 – Loudoun line require load shedding in and of itself when (1) not adding the 502 – Loudoun line and (2) taking a heavily used 500 kV line (running roughly parallel to the proposed new facilities) out of service for parts of five years will <u>not</u> cause load shedding?

9. <u>TrAILCo and PJM Did Not Evaluate The Cost Effectiveness of the Proposed Facilities and Improperly Shifted the Burden to Prove All Aspects of Potential Alternatives to Other Parties.</u>

[18] "To suggest that we should then re-dispatch the system, essentially unwinding the critical system condition, to resolve the violation would be to put our head in the sand and invite a host of operational conditions that would not be controllable without shedding customer load as a result of a weakened transmission grid." TrAILCo Ex. 3-RJ at 14.

In rejecting ECC's proposed alternatives for being "piecemeal" and making findings that the 502-Loudoun facilities "will resolve all of the projected overloads in the southern portion of the Allegheny Power transmission zone in a cost-effective and timely manner," the Commission committed error by not requiring that TrAILCo properly evaluate alternatives and by improperly shifting the burden of proof to ECC and opposing parties to propose and fully support alternatives, including performing engineering and cost assessments of such alternatives. Order at 31-32.

When the PUC found, with respect to ECC's proposed alternatives, "insufficient cost certainty to outweigh the record evidence supporting the proposed 502 Junction Facilities", the PUC shifted the burden of proof to the non-utility parties, in violation of Pennsylvania law. *See* Order at 32. The Commission did this even though it had not required TrAILCo to perform such assessments and even though ECC and other parties simply were not in a position, given the limited time frame, to prepare such evaluations.

What is more important is that TrAILCo and PJM did not consider or evaluate alternatives in the way that the regulations require. Under the Commission's regulations, TrAILCo has the burden of proposing and evaluating available alternatives and, given TrAILCo's failure to propose and evaluate alternatives, this burden cannot be shifted to other parties to prove that the alleged problems could be solved in a piecemeal, less costly, or less intrusive manner.

Furthermore, the record does <u>not</u> contain sufficient evidence that the Pennsylvania 502 Junction Facilities will resolve all of the projected overloads "in a <u>cost-effective</u> … manner." Order at 31 (emphasis supplied).

Despite the fact that the PUC held that "[i]n reviewing alternatives such as these, the issue of costs is an important driver", no economic analysis whatsoever went into the inclusion of the TrAILCo project in the 2006 RTEP. Order at 31; Tr. 2500.

And TrAILCo witnesses also admitted that the only cost comparison performed regarding the 502-Loudoun line was the cost difference between tying the 500 kV line into the Meadowbrook substation (at a cost of $20 million) or installing a static var compensator at Meadowbrook (at a cost of $35 million) to deal with alleged voltage issues at Meadowbrook (occurrences 10-12 on SWG-1). Tr. 2583-2585. TrAILCo did not perform any analysis of the remaining $1 billion cost of the TrAIL line.

Neither TrAILCo nor PJM have done any cost comparison between the 502-Loudoun line and any other possible solution to the reliability issues allegedly driving the need for the 502-Loudoun line. There is also no evidence in the record of a cost comparison between the 502-Loudoun line and fixing the line rating issue between Mt. Storm and Doubs by 1) retensioning, 2) reconductoring, or 3) performing grading and raising a few of the towers. TrAILCo also did not consider the cost impact of the CPV Warren generating facility to address electrical reliability issues 10-12, even though TrAILCo witnesses have admitted that the CPV Warren facility would eliminate those voltage issues.

In light of the clear failure of PJM's RTEP and TrAILCo to present an appropriate evaluation of alternatives, the PUC erred in its fundamental reliance on the RTEP and the single transmission solution presented by it, especially when the evidence clearly showed that numerous alternatives should have been evaluated by TrAILCo, but were not evaluated and could not fairly be addressed in this proceeding without shifting the burden of proof to non-utility parties to present alternatives – a further error committed by the PUC.

F. <u>**The PUC Legally Erred In Its Application Of The Regulatory Standards Under 52 Pa. Code §57.72, §57.75 §57.76, And Its Constitutional Obligations Under Article I, § 27**</u>

As the Commonwealth Court has noted in numerous cases: "we may not disturb an order of the PUC unless we determine that constitutional rights were violated, an error of law was committed, or necessary findings of fact were not supported by substantial evidence." <u>*Teltron, Inc. v. Pennsylvania Public Utility Commission*, 83 Pa.Cmwlth. 407, 477 A.2d 599 (1984)</u>; *PP&L v. Pa.P.U.C.*, 696 A.2d 248 (Pa.Cmwlth. 1997), appeal denied *Pennsylvania Power and Light Co. v. Pennsylvania Public Utility Com'n*, 553 Pa. 709, 719 A.2d 748 (1998).

In this case, this Honorable Court must "disturb" the Order because the PUC committed serious legal errors, and constitutional rights were violated, when the PUC granted TrAILCo's application despite the fact that TrAILCo made no effort to comply with its constitutional obligations under Article I, § 27, or the legal requirements of the siting regulations §57.72, §57.75 or §57.76 – namely, TrAILCo did not assess and attempt to minimize the environmental and health and safety impacts of the project (including the impacts on drinking water), the effect of the project on coal-fired generation or pollution, TrAILCo did not describe alternate routes it "considered" with enough particularity to distinguish between them, and TrAILCo made no attempt to compare the relative merits of each of the alternate routes.

1. <u>The PUC ignored TrAILCo's Non-Compliance with § 57.72(c).</u>

52 Pa. Code § 57.72(c) sets forth the information that an application, such as the one submitted by TrAILCo, "shall" contain. By using "shall," the regulations clearly *require* that an applicant provide all the information listed in § 57.72(c). This mandatory minimum information is required so that the PUC, and the parties to the proceeding, can assess whether the project complies with Article I, § 27 and 52 Pa. Code §57.76.

§ 57.72(c) requires an application to contain:

- Studies of projected environmental impact of proposed high-voltage line and of the efforts to minimize the impact of that line. *Id.* at § 57.72(c)(7);

- The identification of archeological, geological, historical, scenic or wilderness areas within two miles of the line. *Id.* at § 57.72(c)(8); and

- A description of reasonable alternative routes to the proposed HV line, including a description of the corridor planning methodology, a comparison of the merits and detriments of each route, and a statement of the reasons for selecting the proposed HV line route. *Id.* at § 57.72(c)(10).

The route selection process was complete by the time of the preparation of TrAILCo's April 2007 line route evaluation report (LRE). TrAILCo. St.5 at 2; JH-1; RD at 169; Order at 35. The LRE constitutes TrAILCo's complete effort to comply with § 57.72(c). *See e.g. Id*.

The LRE indicates that TrAILCo "considered" five alternative routes for the 502 Junction Facilities before selecting Route H—the preferred route. JH-1 at p. 27-28. The five alternative routes TrAILCo "considered" were labeled D-H. *Id.* at p. 27. Routes D-H are all 1.2 miles long. *Id.* at p. 28. However, the LRE:

- fails to provide descriptions sufficient to separately delineate Routes D, E, F, G, and H from each other; and

- omits a discussion of the comparative merits of each route. *Id.* at 27-28.

As set forth above, §57.72(c)(10) requires "[a] description of reasonable alternative routes" and "a comparison of the merits and detriments of each route." In addition, §57.72(c)(10) requires "a statement of the reasons for selecting the proposed HV line route". Because TrAILCo (1) did not provide descriptions sufficient to separately delineate the routes; and (2) did not discuss the relative merits of each route, TrAILCo failed to comply with 52 Pa. Code § 57.72(c)(10), and Article I, § 27 of the Pennsylvania Constitution.

TrAILCo also failed to describe the impact of the project on groundwater, which is particularly important because the record reflects that most of the impacted properties draw drinking water from wells or springs.

The regulations, at 52 Pa. Code § 57.72(c)(7), require studies of the projected environmental impact of a proposed high-voltage line, and the efforts to minimize the impact of that line. Clearly, that was not done. In addition, "a discussion of the comparative merits of each route" should include a discussion of the impact of the project on groundwater, especially when most of the affected landowners obtain their drinking water from groundwater. *See* 52 Pa. Code § 57.72(c)(10). *See e.g.* 444:1-9 (Testimony of Carl Burkhardt); 237:17-22 (Testimony of Robert Cameron)[19].

The PUC's Office of Trial Staff (OTS) agreed with the ECC that TrAILCo did not comply with the siting regulations:

> The fundamental failing of TrAILCo in this proceeding is the failure to substantiate its request to site, build and maintain the proposed high voltage transmission lines with substantial, credible evidence which demonstrates its adherence to the Commission's siting regulations.

OTS Reply Exceptions at 3; *see also* OTS St. 1 and St. 1-SR.

> OTS has argued in this proceeding that the route selection process utilized by TrAILCo was flawed and the Route Evaluation Report and Environmental Report ("LRE") failed to adequately consider alternative routes and the impacts of siting the lines within those specified routes. This criticism extended to all aspects of the TrAIL proposal, including the Pennsylvania 502 Junction Segment.

Id. at 7-8. In summary, the OTS leveled the following criticisms at TrAILCo:

> Despite Commission regulations requiring an analysis of the methodology for developing routes and alternative routes, a comparison of the relative merits of each route and a statement of reasons underlying the selection of the ultimate route, TrAILCo's LRE is devoid of any discussion on this issue with respect to

[19] Numerous property owners testified to the use of springs and wells for both domestic use and for their animals. *See* footnote 1, *supra*.

> Route H. Indeed, as the ECC noted in its Main Brief on this very point, approximately one page of an otherwise 193 page report sets forth TrAILCo's analysis justifying the selection of Route H. **No analysis of the comparative routes is set forth in the LRE, nor is there any justification for the ultimate selection of Route H** included in the LRE.

Id. at 8; OTS Reply Brief at 5 (citations omitted)(emphasis supplied).

But the PUC chose to ignore the recommendations of *its own* Office of Trial Staff, and the fact that TrAILCo did not even attempt to comply with the siting regulations. "Although we will grant TrAILCo's Exception on this issue based upon the record evidence, ***we are concerned about the lack of alternative route descriptions and lack of discussion of the comparative merits of alternatives in general***." Order at 39 (emphasis supplied).

Although the PUC was "concerned" about the lack of alternative route descriptions, and the lack of discussion of the comparative merits of alternatives in general, (i.e. TrAILCo did not comply with the Pennsylvania Constitution, the PA Code, or the siting regulations), the PUC did not *deny* the Application. Instead, the Applicant was instructed to: "Consistent with the Recommended Decision, ***in the future***, ***TrAILCo is instructed to provide better alternative route descriptions and discussion of comparative merits of alternative routes***." *Id.* (emphasis supplied).

The Commission should have been far more than "concerned"; it should have found that this key information undermined the rights of the parties, shifted the burden of proof to other parties, and was inconsistent with the constitutional and regulatory requirements for high voltage transmission lines. This failure to require compliance with the siting regulations or

Article I, § 27 of the Pennsylvania Constitution, is a serious legal error. It clearly requires reversal of the PUC's Order[20].

2. <u>The PUC Ignored TrAILCo's Failure to Comply With §57.75(e) *and* Its Failure to Prove Minimum Adverse Environmental Impact</u>

Section 57.75(e) requires the PUC to analyze the environmental impact of the proposed facilities by accepting evidence on, and considering, the following:

- (3) The impact and the efforts which have been and will be made to minimize the impact, if any, of the proposed HV line upon the following: (i) Land use; (ii) Soil and sedimentation; (iii) Plant and wildlife habitats; (iv) Terrain; (v) Hydrology; (vi) Landscape; (vii) Archeologic areas; (viii) Geologic areas; (ix) Historic areas; (x) Scenic areas; (xi) Wilderness areas; and (xii) Scenic rivers.

- (4) The availability of reasonable alternative routes.

52 Pa. Code 57.75(e)[21].

After considering the evidence on environmental impacts required by 52 Pa. Code 57.75(e), the siting regulations set forth the following directive: "[t]he Commission **will not** grant the application . . . unless it finds and determines as to the proposed HV line … [t]hat 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)(4)(emphasis supplied).

But, as the ALJs recognized, TrAILCo did not properly assess the environmental impacts:

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[20] The PUC also erroneously concluded that "the route selection was driven by routing criteria in adjacent jurisdictions. As repeatedly argued by TrAILCo, the chosen route is the shortest route given this circumstance." Order at 38. But there is no evidence of this assertion *in the record* – it all comes from TrAILCo's Brief. What the record reflects is that all the alternate routes were the same length – 1.2 miles – so TrAILCo could not have picked the "shortest route". LRE (Ex. JH-1) at 28.

[21] This information is also required so that the PUC, and the parties to the proceeding, can assess whether the project complies with Article I, § 27 and 52 Pa. Code §57.76.

> **Merely providing a listing** of natural, cultural and environmental phenomena encountered along a preferred transmission line route, albeit, an incomplete cataloging apparently, clearly **cannot constitute a "reasonable effort" to "affirmatively and completely" address environmental impacts**. RD at 189. (emphasis supplied).
>
> Indeed…even for the areas where environmental phenomena are encountered, the ***LRE does not even analyze or explain the project's construction, maintenance, cumulative and secondary impacts*** upon those considerations. *Id.;* ECC St. 3 at 11 (emphasis supplied).

TrAILCo's application 1) lacked a soil and sedimentation plan; 2) failed to identify locations of access roads; 3) failed to detail how it would protect ground and surface water sources; and 4) did not present a detailed plan on how it would minimize water and air pollution from the construction of the project. *Id*. *See also* Ex. JH-1.

Significantly, TrAILCo admits that the project can result in the construction and operation of four (4) new coal-fired power plants in West Virginia capable of generating an additional 2700 megawatts. Tr. 2823-2825.

In its Briefs before the PUC, the OCA demonstrated that a practical effect of the construction of TrAIL will be an increase in cheaper, coal-fired generation in Western PJM and a decrease in more expensive, non-coal generation in Eastern PJM. OCA St. 2 at 18-20; ECC Cross Ex. 18. PJM recognized this "shift" in generation in its April 18, 2007 PJM Planning Committee's "Market Efficiency Analysis Progress Report." OCA St. 2 at 18-20, Ex. RMF-2 at 13. In this report, PJM calculated an almost 11 million MWh "shift" per year of generation from the eastern and southern zones of PJM to the western zones. *Id*.

The record reveals that exposure to air pollution in Pennsylvania is especially acute. ECC-2 at 6-8; Exhibit RQH-4; Comments of Sierra Club Pennsylvania Chapter, Clean Air Committee (Exhibit RQH-l0). Ozone, smog, and particulate matter, 2.5 microns and smaller in Southwestern Pennsylvania are particularly acute. *Id.* Such pollution is respirable and causes a variety of potentially life-threatening illnesses. *Id.* Increased power generation leads only to increased toxic pollution whether emitted into the air or dumped into the landfills, including landfills in Greene and Washington counties. *Id*. The situation in Pennsylvania already is detrimentally impacted by existing pollution, and will be exacerbated by increased electric generation. *Id*. Despite these facts, TrAILCo did not address the impacts that the project will have on pollution, including air pollution, or any other impact from the power generating facilities that will use the lines. Tr. 3264:22-3266:7.

The ALJs concluded that this lack of information in TrAILCo's Line Route Evaluation prevented TrAILCo from meeting its burden that it "acted responsibly and reasonably to mitigate the environmental impacts of its proposed project." *Id*. at 190.

But the PUC ignored TrAILCo's non-compliance, concluding that "[b]ecause it is only 1.2 miles in length, there will be minimal impact on the environment." Order at 42. Apparently, the PUC believes that the Pennsylvania Constitution and the siting regulations do not apply to a line of this length.

The PUC's assessment of environmental impacts, as required by the Pennsylvania Constitution, the Pennsylvania Code, and the siting regulations, is not discharged by resorting to a tape measure.

Is the PUC really saying that any application for a line of 1.2 miles in length or shorter is exempt from the requirements of the Code and the Pennsylvania Constitution? Is a five mile line exempt as well? What about a twenty-five mile line? If the legislature wanted to create an exception based upon the length of the line, such an exception would have been written into the statute or regulations.

Instead, the law requires the PUC to make an assessment of the actual environmental impacts that will occur from the construction. The PUC *cannot* approve an application "unless it finds and determines as to the proposed HV line … [t]hat 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)(4)(emphasis supplied).

The fact that TrAILCo and the PUC did not comply with their statutory obligations is evident from the PUC's Order: "[t]he Commission takes its environmental obligations seriously and is **very concerned about the lack of information in this Application**" Order at 42 (emphasis supplied). As the PUC's Office of Trial Staff pointed out in its Reply exceptions, the "lack of information" in the application is fatal to TrAILCo's application, and, instead of excusing the non-compliance, the PUC should have "adopt[ed] the ALJ's recommendations with regard to siting in their entirety." OTS Reply Exceptions at 7-9.

Significantly, the PUC's finding of "minimal impact on the environment" was "dependent on several commitments made by TrAILCo" including:

> (a) TrAILCo **shall develop a plan to identify ground sources of water**, including springs and wells….[and]
>
> (c) TrAILCo shall file a report with the Commission, prior to commencing construction of the Pennsylvania 502 Junction Facilities, evidencing the approval and/or acceptance of any required or necessary **wetlands delineation**, final **endangered species study** with any mitigation plans, **historical/archeological significance study** with mitigation plans, and any other required or necessary studies currently underway.

Order at 42-43 (emphasis supplied).

But it is too late to assess these environmental impacts **<u>after</u>** the specific line route has been chosen. One of the reasons the siting regulations were adopted thirty years ago was to avoid the very issues created by such an "after the fact" analysis: "[f]inally, review occurs too late. In many cases, the application for certification is not filed until a final route has been selected, most of the needed rights-for-way have been purchased, and some construction begun." *Re Proposed Electric Regulation*, 49 Pa. P.U.C. 709, 710 (1976).

The PUC's Order clearly shows that TrAILCo has failed to address several critical environmental impacts - most notably the impact on surface and subsurface waters. RD at 201. That alone is a critical error because the majority of the impacted communities draw their potable water supplies from such sources. RD at 169. *See e.g.* 444:1-9 (Testimony of Carl Burkhardt); 237:17-22 (Testimony of Robert Cameron)[22].

Moreover, as discussed above, the five alternative routes are not described in sufficient detail to distinguish between them, and the LRE provides no comparison of the relative merits of the environmental impacts of the alternate routes. From the information provided by TrAILCo, the PUC did not and could not determine that the preferred Route minimized environmental impacts among the alternative routes.

The PUC committed legal errors, and violated constitutional rights, by excusing TrAILCo's noncompliance based solely on the length of the line. Thus, the PUC's Order must be reversed[23].

[22] Numerous property owners testified to the use of springs and wells for both domestic use and for their animals. *See* footnote 1, *supra*.

[23] The Commission may not waive requirements of its regulations unless doing so will not adversely affect substantive rights of a party. *Popowsky v. Pa. P.U.C.*, 589 Pa. 605, 616, 910 A.2d 38, 44 (2006). In this case, the PUC waived Code provisions and regulations requiring the applicant to provide key information necessary to assess or challenge the application. Waiving such requirements clearly prejudiced the ECC, and adversely affected its substantive rights. The Commission's regulations also do not allow for waivers of regulations unless there has been an application for waiver. 52 Pa. Code § 1.91(a). The Applicant in this case did not request a waiver of the siting regulations. Most significantly, the requirements of the Pennsylvania Constitution cannot be waived.

VIII. CONCLUSION

In light of the foregoing arguments, The Energy Conservation Council of Pennsylvania submits that the PUC's Opinion and Order approving the Application of Trans-Allegheny Interstate Line Company for a Certificate of Public Convenience to locate and construct the Pennsylvania 502 Junction Facilities, should be reversed.

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