

**PUBLIC SERVICE COMMISSION
OF WEST VIRGINIA
CHARLESTON**

Case No. 07-____-E-____

TRANS-ALLEGHENY INTERSTATE LINE COMPANY

**Application of Trans-Allegheny Interstate Line
Company for a certificate of public convenience
and necessity under W. Va. Code § 24-2-11a
authorizing the construction and operation of the
West Virginia segments of a 500 kV electric
transmission line and related facilities in Monongalia,
Preston, Tucker, Grant, Hardy, and Hampshire
Counties, and for related relief**

**DIRECT TESTIMONY OF
LAWRENCE A. HOZEMPA**

March 30, 2007

1 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

2 A. My name is Lawrence A. Hozempa and my business address is 800 Cabin Hill
3 Drive, Greensburg, Pennsylvania 15601.

4

5 RESPONSIBILITIES, EXPERIENCE AND EDUCATION

6 Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

7 A. I am employed by Allegheny Energy Service Corporation as a Senior Engineer in
8 the Transmission Planning Department assigned to perform certain tasks for
9 Trans-Allegheny Interstate Line Company (“TrAILCo”) and Allegheny Power.

10 Q. PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE AND
11 EDUCATIONAL BACKGROUND.

12 A. I received a Bachelors of Science Degree in Electrical Engineering from The
13 Pennsylvania State University. I am a registered Professional Engineer in the
14 State of West Virginia and the Commonwealth of Pennsylvania. I have been
15 employed by Allegheny Energy Service Corporation for 20 years. My current
16 duties and responsibilities include analyzing Allegheny Power’s transmission
17 system, identifying potential reliability or stability violations of the transmission
18 system, reviewing alternatives and recommending solutions to correct potential
19 violations. My duties and responsibilities also include working with PJM
20 Interconnection, L.L.C. (“PJM”) and neighboring transmission owners in

1 analyzing the transmission system from a regional perspective. More recently my
2 duties and responsibilities have been expanded to include analysis and planning
3 for TrAILCo projects, such as the Trans-Allegheny Interstate Line (“TrAIL”).
4

5 PURPOSE OF TESTIMONY

6 Q. PLEASE DESCRIBE THE PURPOSE OF YOUR TESTIMONY?

7 A. On behalf of TrAILCo, I will:

- 8 ▪ Describe TrAIL,
9 ▪ Explain Allegheny Power’s perspective on the electrical need for TrAIL,
10 ▪ Describe Allegheny Power’s involvement in the planning process that
11 resulted in a determination that the 502 Junction Segments of TrAIL and the
12 Loudoun Segments are needed to assure the electric reliability of Allegheny
13 Power’s transmission facilities and the PJM transmission system, and
14 ▪ Explain the relationship of Allegheny Power’s transmission facilities to the
15 PJM transmission system.

16 In their direct testimony, Mr. Herling and Mr. Gass also address the
17 electrical need for these transmission line segments and the planning process that
18 resulted in the determination of that need. Although I will describe the general
19 route of TrAIL, the details of the specific route proposed by TrAILCo for the line
20 are described and supported by TrAILCo witness Halpern in his direct testimony.

1 Q. WILL THE USE OF VARIOUS TERMS IN YOUR TESTIMONY BE
2 CONSISTENT WITH THE DEFINITIONS ASSIGNED TO THOSE TERMS IN
3 THE TABLE OF NOMENCLATURE ATTACHED TO THE APPLICATION?

4 A. Yes. In addition, I may define other specific terms in my direct testimony.
5

6 EXHIBITS

7 Q. PLEASE IDENTIFY AND DESCRIBE THE EXHIBITS TO YOUR
8 TESTIMONY AND SUMMARIZE THE CONTENTS OF THOSE EXHIBITS.

9 A. I am sponsoring two exhibits with my direct testimony:

- 10 • Exhibit LAH-1 presents the general route of TrAIL for illustrative
11 purposes; and
12 • Exhibit LAH-2 presents the PJM transmission zones based on
13 Attachment J to the PJM Open Access Transmission Tariff.
14

15 ELECTRICAL PERSPECTIVE OF TRAIL

16 Q. WHAT IS TRAIL FROM AN ELECTRICAL PERSPECTIVE?

17 A. TrAIL is a proposed electric reliability transmission enhancement to the PJM
18 transmission system consisting of a new 500 kV transmission line, two new
19 transmission substations, the expansion of an existing transmission substation and
20 three new 138 kV transmission lines to be constructed by TrAILCo. The 500 kV

1 transmission line is required to connect certain electrical points, i.e. transmission
2 substations. Specifically, the line will connect the proposed Prexy Substation in
3 Washington County, Pennsylvania, the proposed 502 Junction Substation in
4 Greene County, Pennsylvania, the existing Mt. Storm Substation owned by
5 Virginia Electric and Power Company (“Dominion Virginia Power”) in Grant
6 County, West Virginia, and Allegheny Power’s existing Meadow Brook
7 Substation in Frederick County, Virginia. From the Meadow Brook Substation,
8 TrAIL will continue east and connect with the continuation of the 500 kV line to
9 be constructed by Dominion Virginia Power in its PJM transmission zone to its
10 Loudoun Substation in Loudoun County, Virginia. TrAIL includes the new
11 Prexy and 502 Junction Substations, the expansion of the Meadow Brook
12 Substation to accommodate the new 500 kV line (“Meadow Brook Expansion”)
13 and three 138 kV lines originating at Prexy Substation and connecting with
14 existing Allegheny Power transmission facilities in Pennsylvania. TrAIL does not
15 include any modifications or expansions to be constructed by Dominion Virginia
16 Power at the Mt. Storm and Loudoun Substations or the continuation of the line in
17 the Dominion Virginia Power transmission zone of PJM to the Loudoun
18 Substation. The general route of TrAIL and locations of these substations,
19 including the continuation of the line in the Dominion Virginia Power
20 transmission zone, is shown for illustrative purposes on Exhibit LAH-1.

1 TrAILCo witnesses Halpern and Fleissner provide greater detail regarding
2 TrAILCo's proposed route for this line. All of the TrAIL facilities will be located
3 within the Allegheny Power transmission zone of PJM ("Allegheny Power Zone")
4 as shown on Exhibit LAH-2, which shows all of the PJM transmission zones
5 based on Attachment J of the PJM Open Access Transmission Tariff on file with
6 FERC.

7
8 ELECTRICAL NEED FOR THE WEST VIRGINIA SEGMENTS OF TRAIL

9 Q. WHAT IS THE ELECTRICAL NEED FOR THE WEST VIRGINIA
10 SEGMENTS OF TRAIL?

11 A. As described in detail in the direct testimony of TrAILCo witness Gass, TrAIL is
12 needed for electrical reliability purposes. As indicated by Mr. Gass, the need for
13 the West Virginia Segments of TrAIL is the same as the need for the 502 Junction
14 Substation, the remainder of the 502 Junction Segments, the Mt. Storm
15 Expansion, the Meadow Brook Expansion, the Loudoun Segment and the
16 Loudoun Expansion. Specifically, these facilities are needed to address 12
17 potential electric reliability problems that will occur beginning in 2011 if the 502
18 Junction Segments and the Loudoun Segment are not constructed. Mr. Gass
19 addresses this need in further detail.

1 Q. HAS ALLEGHENY POWER PERFORMED ANY REVIEWS OR STUDIES OF
2 THE ELECTRICAL NEED FOR THE WEST VIRGINIA SEGMENTS,
3 INCLUDING ANY REVIEWS OF THE PJM STUDIES TO VALIDATE THEIR
4 RESULTS?

5 A. Yes. On behalf of Allegheny Power and TrAILCo, I have reviewed the PJM
6 Load Deliverability and Generation Deliverability studies that identified the
7 reliability violations described by Mr. Gass and have worked closely with PJM's
8 planning department in determining the best solution to address the reliability
9 problems identified by those studies. In addition, I have performed independent
10 internal system assessments that validate the need for system reinforcements in
11 the Meadow Brook Substation area and the reliability benefits that will result
12 from the construction of the West Virginia Segments and the remaining 502
13 Junction Segments into that substation.

14 Q. BASED ON YOUR REVIEWS AND ASSESSMENTS, HAVE YOU FORMED
15 AN OPINION REGARDING THE NEED FOR THE WEST VIRGINIA
16 SEGMENTS?

17 A. Yes. After reviewing the studies performed by PJM and performing the
18 assessment with regard to the Meadow Brook Substation, it is my opinion that the
19 West Virginia Segments, the 502 Junction Substation, the remaining 502 Junction
20 Segments and the Meadow Brook Expansion, when combined with the Mt. Storm

1 Expansion, the Loudoun Segment and the Loudoun Expansion, provide the best
2 solution to the reliability violations that are expected to begin occurring in 2011 if
3 these segments are not constructed. The overloads projected to occur on the Mt.
4 Storm-Doubs 500 kV and Pruntytown-Mt. Storm 500 kV lines (each of which is
5 located substantially in West Virginia) indicate an additional extra-high voltage
6 (“EHV”) path is necessary. This EHV line needs to start west of the Pruntytown
7 Substation and end east of the Doubs Substation. These facilities will provide this
8 additional EHV path.

9 Q. HAVE YOU REVIEWED MR. GASS’S DIRECT TESTIMONY IN THIS
10 PROCEEDING?

11 A. Yes, I have and I agree with his conclusions regarding the electrical need for these
12 facilities.

13 Q. HOW WILL ELECTRIC SERVICE CUSTOMERS WITHIN ALLEGHENY
14 POWER’S RETAIL SERVICE TERRITORY BE AFFECTED IF THE WEST
15 VIRGINIA SEGMENTS ARE NOT CONSTRUCTED?

16 A. Even though the proposal to construct the West Virginia Segments, the 502
17 Junction Substation, the remaining 502 Junction Segments, the Mt. Storm
18 Expansion, the Meadow Brook Expansion, the Loudoun Segment and the
19 Loudoun Expansion was prompted by PJM’s mid-Atlantic Load Deliverability
20 test, customers outside of the mid-Atlantic area will be affected if these facilities

1 are not constructed. An overload of the Mt. Storm-Doubs 500 kV line or the
2 Pruntytown-Mt. Storm 500 kV line could have far-reaching effects – effects
3 similar to those experienced in the August 2003 blackout that affected over 50
4 million people. Specifically, the retail customers served by Allegheny Power in
5 northeastern West Virginia will be at risk for a voltage collapse in the area in the
6 event of outages of the Greenland Gap-Meadow Brook 500 kV line and the
7 Meadow Brook-Morrisville 500 kV line. In addition, those customers will also be
8 at risk for a localized “brown-out” or low-voltage condition in the event of an
9 outage of the Mt. Storm-Doubs 500 kV line and an outage of either the Hatfield-
10 Black Oak 500 kV line or the Black Oak-Bedington 500 kV line.

11 An outage of the Greenland Gap-Meadow Brook line would cause the Mt.
12 Storm-Doubs 500 kV line to exceed its emergency rating and overload. The
13 overload could cause the line to fail, which would result in an automatic
14 disconnection of the line from the rest of the system. With the outage of both the
15 Greenland Gap-Meadow Brook line and the Mt. Storm-Doubs line, there would
16 be two critical west-to-east pathways open or disconnected from the transmission
17 system. Once these two lines are disconnected, it is very likely that other west-to-
18 east pathways will overload and disconnect, causing the underlying transmission
19 system which serves local load on the east side of the Allegheny Mountains,
20 including the eastern panhandle of West Virginia, to begin to collapse due to

1 regional Modeling Group loadflow case. This was the case used by Allegheny
2 Power at that time to conduct its analyses. As a member of East Central Area
3 Reliability Council ("ECAR"), Allegheny Power was required to report its
4 findings to ECAR. Allegheny Power also participated in joint committees and
5 study groups through ECAR that performed larger system studies that included
6 multiple transmission zones and reached beyond ECAR boundaries.

7 Since joining PJM, Allegheny Power has continued to conduct its own
8 internal system planning analyses, but reports its findings to PJM and works with
9 PJM to provide modeling data used for PJM analyses. However, the most
10 significant change to the Allegheny Power planning process since becoming a
11 PJM member is that more of the potential reliability violations involving
12 Allegheny Power's transmission facilities are discovered through the regional
13 planning analyses conducted by PJM. This permits these potential problems to be
14 addressed, including the assignment of cost responsibility, on a regional, rather
15 than local or zonal basis. In addition, transmission upgrades recommended by
16 Allegheny Power are reviewed by PJM to evaluate the impact on neighboring
17 transmission owners and the regional transmission network. In essence PJM, as
18 the regional planning authority, is intimately involved throughout the planning
19 process at Allegheny Power and ultimately has the responsibility for assuring the

1 Allegheny Power transmission facilities, as a part of the regional transmission
2 grid, meet reliability standards.

3 ECAR has merged with other regional reliability councils to form
4 ReliabilityFirst Corporation (“RFC”) as a regional reliability council and RFC
5 became the reliability council for Allegheny Power transmission facilities
6 effective January 1, 2006. Allegheny Power continues to work with RFC in the
7 same way it worked with ECAR and submits reports as required by RFC.

8 Q. DOES PJM’S ROLE IN TRANSMISSION PLANNING INCLUDE
9 IDENTIFYING SPECIFIC TRANSMISSION UPGRADES AND EXPANSIONS
10 NEEDED WITHIN THE ALLEGHENY POWER ZONE?

11 A. Yes. When Allegheny Power joined PJM in April 2002, it transferred
12 “functional control” of its transmission system to PJM. Functional control
13 includes planning transmission upgrades and expansions not only within the
14 Allegheny Power Zone but also from a regional perspective. As required by
15 Schedule 6 of the PJM Amended and Restated Operating Agreement (“Operating
16 Agreement”) on file with FERC, PJM periodically issues a Regional
17 Transmission Expansion Plan (“RTEP”). Mr. Herling discusses Schedule 6 and
18 the regional planning process in detail in his testimony.

1 Q. WHAT ARE THE BENEFITS OF REGIONAL PLANNING BY PJM TO
2 ALLEGHENY POWER AND CUSTOMERS IN THE ALLEGHENY POWER
3 ZONE?

4 A. The benefits of regional planning to Allegheny Power and customers within the
5 Allegheny Power Zone are increased reliability and operational efficiency. Prior
6 to joining PJM, Allegheny Power analyzed its transmission system based on
7 historic transfer data and assumed generation dispatch in the transmission zones
8 surrounding the Allegheny Power Zone. The loading on Allegheny Power's
9 transmission facilities was often different in real-time than the internal analyses
10 showed. This was attributable to variations in generation dispatch and point-to-
11 point transfers taking place on transmission systems outside of the Allegheny
12 Power Zone that affected the loading on Allegheny Power's transmission system.
13 PJM's regional planning process dispatches generation and models transfers
14 across the entire region, a significantly broader area than the area covered by the
15 Allegheny Power transmission planning process. Since it is being compiled at a
16 regional level, this larger model more accurately depicts the loading on Allegheny
17 Power's transmission facilities. This provides Allegheny Power and PJM better
18 information in determining where potential reliability violations may occur. In
19 addition, the system operators also have better information to manage the flows
20 on the system to operate the system efficiently.

1 Q. PLEASE DESCRIBE ALLEGHENY POWER'S INVOLVEMENT IN THE
2 PLANNING PROCESS THAT RESULTED IN A DETERMINATION THAT
3 THE WEST VIRGINIA SEGMENTS, ALONG WITH THE RELATED
4 FACILITIES IN PENNSYLVANIA AND VIRGINIA, ARE NEEDED TO
5 ASSURE THE ELECTRIC RELIABILITY OF ALLEGHENY POWER'S
6 TRANSMISSION FACILITIES AND THE PJM TRANSMISSION SYSTEM.

7 A. In testimony provided to the Federal Energy Regulatory Commission at a
8 technical conference on May 13, 2005 in Charleston, West Virginia, PJM
9 announced the Project Mountaineer transmission line concept. Project
10 Mountaineer did not identify specific transmission line routes, but rather an
11 approach through which PJM's independent regional planning combined with its
12 stakeholder process could identify a comprehensive transmission plan to increase
13 transfer capability from west to east within the PJM region. After the
14 announcement, Allegheny Power began a comprehensive review of possible
15 system upgrades within the Allegheny Power Zone that would help to achieve the
16 Project Mountaineer objectives. Allegheny Power shared with PJM and several
17 PJM transmission owners its analyses and results in October 2005. In November
18 2005, Allegheny Power, American Electric Power Corporation ("AEP"),
19 FirstEnergy Corp. ("FirstEnergy"), and Dominion Virginia Power began an effort
20 to consolidate their independently conducted historic transfer studies into one

1 study proposal to be submitted to PJM for consideration as solutions for the
2 Project Mountaineer concept. In February 2006, this joint report was submitted to
3 PJM.

4 Later in February 2006, Allegheny Power submitted its original TrAIL
5 proposal to PJM as a possible solution to achieve the Project Mountaineer
6 objectives. The original TrAIL consisted of a 330-mile, 500 kV line stretching
7 from Allegheny Power's Wylie Ridge Substation in the western panhandle of
8 West Virginia near Weirton, West Virginia to a new substation near Kemptown,
9 Maryland in Frederick County, Maryland. As PJM proceeded in 2006 with the
10 development of its five-year RTEP analyses for 2011, projected reliability
11 violations in 2011 were discovered on the Mt. Storm-Doubs 500 kV line for the
12 mid-Atlantic Load Deliverability test. PJM notified Allegheny Power and
13 Dominion Virginia Power in March 2006 of these projected violations and asked
14 for solution proposals. PJM also notified Allegheny Power of a projected
15 reliability violation on the Pruntytown-Mt. Storm 500 kV line for a Generator
16 Deliverability test in 2014. At this time, Allegheny Power recommended to PJM
17 that the original TrAIL proposal be considered as a solution to the reliability
18 violations on the Pruntytown-Mt. Storm 500 kV line and the Mt. Storm-Doubs
19 500 kV line. After reviewing the solution alternatives submitted by Allegheny
20 Power and others, PJM notified Allegheny Power and Dominion Virginia Power

1 that its recommended solution was the 502 Junction Segments and the Loudoun
2 Segment without the tie in at Meadow Brook Substation. Allegheny Power asked
3 PJM to consider tying in at Meadow Brook Substation as a possible solution to
4 the projected Category C (loss of two lines) reliability violations in the Meadow
5 Brook Substation area and PJM agreed.

6 Q. WHEN DID PJM ANNOUNCE THAT THE 502 JUNCTION SEGMENTS AND
7 LOUDOUN SEGMENT NEEDED TO BE CONSTRUCTED?

8 A. In May 2006, at a PJM Transmission Expansion Advisory Committee meeting,
9 PJM presented a proposed RTEP that included the West Virginia Segments along
10 with the remaining 502 Junction Segments and the Loudoun Segment. The
11 proposed RTEP designated Allegheny Power as the transmission owner
12 responsible for financing, constructing, owning, operating and maintaining the
13 West Virginia Segments, the 502 Junction Substation, the remaining 502 Junction
14 Segments and the Meadow Brook Expansion and Dominion Virginia Power as the
15 transmission owner with those responsibilities for the Mt. Storm Expansion, the
16 Loudoun Segment and the Loudoun Expansion. On June 23, 2006, the PJM
17 Board of Managers approved the RTEP that included these segments and, on July
18 21, 2006, PJM filed cost allocations for the RTEP with FERC.

19 Q. WHY DID PJM DESIGNATE ALLEGHENY POWER AS THE
20 TRANSMISSION OWNER RESPONSIBLE FOR FINANCING,

1 CONSTRUCTING, OWNING AND OPERATING THE WEST VIRGINIA
2 SEGMENTS, THE 502 JUNCTION SUBSTATION, THE REMAINING 502
3 JUNCTION SEGMENTS AND THE MEADOW BROOK EXPANSION?

4 A. As a PJM member, Allegheny Power is a party to the Operating Agreement.
5 Schedule 6 of that agreement sets forth the “Regional Transmission Expansion
6 Planning Protocol” that governs the process by which PJM prepares a plan for the
7 enhancement and expansion of the PJM transmission system in order to meet the
8 demands for firm transmission service and to support competition in the PJM
9 Region. The Allegheny Power transmission facilities over which PJM exercises
10 functional control are part of the PJM transmission system.

11 The designation of Allegheny Power to construct, own and/or finance the
12 502 Junction Segments arises under two sections of Schedule 6 and one section of
13 the Consolidated Transmission Owners Agreement. Section 1.7 of Schedule 6
14 sets forth the “obligation to build” of transmission owners. Subsection (a) of
15 Section 1.7 states:

16 Subject to the requirements of applicable law, government
17 regulations and approvals, including, without limitation,
18 requirements to obtain any necessary state or local siting,
19 construction and operating permits, to the availability of
20 required financing, to the ability to acquire necessary right-
21 of-way, and to the right to recover, pursuant to appropriate
22 financial arrangements and tariffs or contracts, all reasonably
23 incurred costs, plus a reasonable return on investment,
24 Transmission Owners designated as the appropriate entities

1 to construct, own and/or finance enhancements or expansions
2 specified in the Regional Transmission Expansion Plan shall
3 construct, own and/or finance such facilities or enter into
4 appropriate contracts to fulfill such obligations. However,
5 nothing herein shall require any Transmission Owner to
6 construct, finance or own any enhancements or expansions
7 specified in the Regional Transmission Expansion Plan for
8 which the plan designates an entity other than a Transmission
9 Owner as the appropriate entity to construct, own and/or
10 finance such enhancements or expansions.
11

12 The “obligation to build” of transmission owners is also set forth in Section
13 4.2 of the Consolidated Transmission Owners Agreement and provides that a
14 transmission owner designated to construct and own or finance transmission
15 enhancements or expansions may enter into appropriate contracts to fulfill those
16 obligations. Mr. Flitman describes how Allegheny Energy, Inc. determined that
17 Allegheny Power’s obligation under Section 1.7 to construct the West Virginia
18 Segments, the 502 Junction Substation, the remaining 502 Junction Segments and
19 the Meadow Brook Expansion would be performed by TrAILCo.

20 Section 1.5.6(f) of Schedule 6 describes how PJM determines which of the
21 transmission owners has the “obligation to build” and states that PJM must
22 designate the transmission owner that owns transmission facilities located in the
23 transmission zone where the particular enhancement or expansion is to be located.
24
25

ALLEGHENY POWER TRANSMISSION FACILITIES
AND THE PJM TRANSMISSION SYSTEM

1
2
3
4 Q. PLEASE DESCRIBE THE RELATIONSHIP OF ALLEGHENY POWER
5 TRANSMISSION FACILITIES TO THE PJM TRANSMISSION SYSTEM.

6 A. Allegheny Power's transmission facilities are located in southwestern, north
7 central, and south central Pennsylvania; northern and eastern West Virginia;
8 western and central Maryland; and northwestern Virginia. These facilities extend
9 approximately 200 miles from the Ohio River in West Virginia to the Potomac
10 River in Maryland. Allegheny Power's transmission facilities are interconnected
11 with the transmission facilities of AEP, Duquesne Light Company, First Energy,
12 Baltimore Gas and Electric Company, Potomac Electric Power Company, and
13 Dominion Virginia Power. All of these interconnections are within the PJM
14 footprint, except the First Energy interconnection, which provides a tie to the
15 Midwest Independent Transmission System Operator ("MISO"). Simply stated,
16 Allegheny Power's transmission facilities are centrally located geographically in
17 the PJM footprint and play a pivotal role in enabling the efficient operation of the
18 PJM market and the transfer of power from western PJM and MISO to the eastern
19 PJM load centers. Allegheny Power's transmission facilities are a major
20 transmission interconnection between the heavily populated, developed areas in
21 eastern PJM and the low cost generating facilities in western PJM and serve as a

1 key path from generation to load within the PJM region and beyond. Allegheny
2 Power's transmission interconnections serve as an electric pathway to provide
3 access to off system resources, as well as a delivery mechanism to adjacent
4 companies.

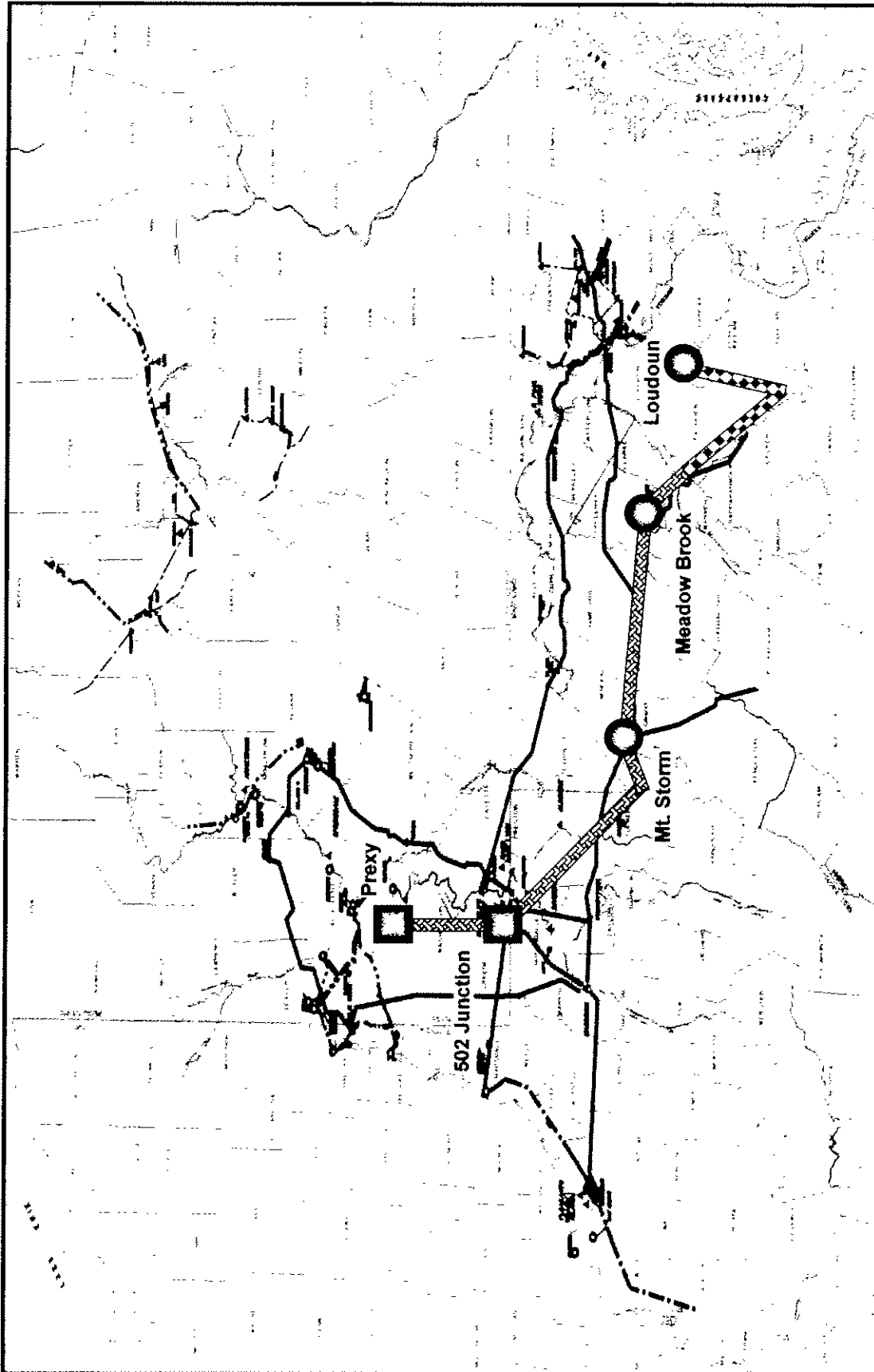
5 Q. IS IT IMPORTANT THAT TRANSMISSION PLANNING FOR ALLEGHENY
6 POWER TRANSMISSION FACILITIES BE INTEGRATED WITH PJM'S
7 REGIONAL PLANNING?

8 A. Yes. Because PJM operates Allegheny Power's transmission facilities as part of a
9 regional transmission system, the planning process needs to incorporate that
10 operating practice into the transmission planning process. While the causes that
11 are driving the electrical need for the West Virginia Segments (i.e. load growth in
12 the mid-Atlantic and northern Virginia areas) are not within Allegheny Power's
13 West Virginia service area, the consequences of not constructing these segments to
14 address these causes, as I discussed earlier in this testimony, could severely affect
15 Allegheny Power customers in West Virginia. If PJM did not conduct its planning
16 process from a regional perspective and only reviewed the effect of Allegheny
17 Power's zonal load on Allegheny Power's transmission facilities, the potential
18 reliability violations that necessitate the West Virginia Segments and the
19 remainder of the 502 Junction Segments as well as the Loudoun Segment may not
20 have been discovered. The risk of overloading the Mt. Storm-Doubs 500 kV line

1 and the Pruntytown-Mt. Storm 500 kV line would still have been as likely, but the
2 resolution of the reliability violations would most probably have been an operating
3 procedure such as controlled load shedding or curtailment of transfers once the
4 violation occurred in real-time. This is not an adequate solution since under
5 certain system conditions customers in the mid-Atlantic and northern Virginia area
6 will be at risk for controlled, rotating blackouts. This situation would be similar to
7 the controlled, rotating blackouts experienced by California residents during the
8 summer of 2001.

9 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

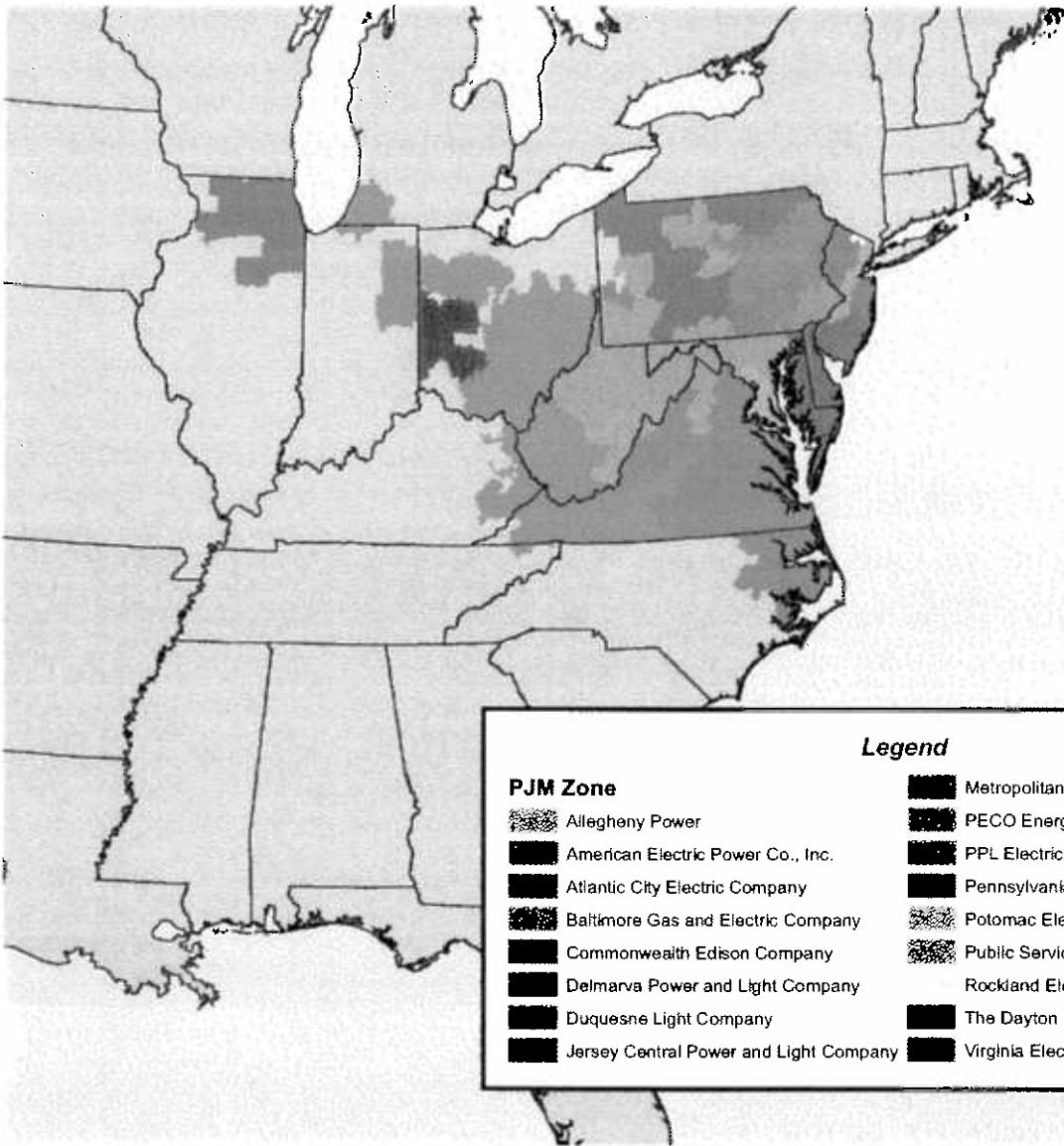
10 A. Yes, it does.



TRAIL
Securing a reliable energy future.

-  500 kV Line Trans-Allegheny Interstate Line Company
-  500 kV Line Dominion Virginia Power
-  Existing EHV Transmission Lines
-  Existing Substation
-  Proposed Substation

Exhibit LAH-2



PJM Zone		Legend	
	Allegheny Power		Metropolitan Edison Company
	American Electric Power Co., Inc.		PECO Energy Company
	Atlantic City Electric Company		PPL Electric Utilities Corporation
	Baltimore Gas and Electric Company		Pennsylvania Electric Company
	Commonwealth Edison Company		Potomac Electric Power Company
	Delmarva Power and Light Company		Public Service Electric and Gas Company
	Duquesne Light Company		Rockland Electric Company
	Jersey Central Power and Light Company		The Dayton Power and Light Co.
			Virginia Electric and Power Co.

