

800 Cabin Hill Drive Greensburg, PA 15601

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April 30, 2012

P.O. Box 3265

Harrisburg, PA 17120

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APR 30 2012

PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU

L-00030161

Re: 2011 Annual Reliability Report - West Pennsylvania Power Company - Pursuant to 52 Pa. Code § 57.195(a)

Dear Secretary Chiavetta,

Rosemary Chiavetta, Secretary

Pennsylvania Public Utility Commission

Enclosed for filing on behalf of West Pennsylvania Power Company ("West Penn" or "Company") are an original and seven (7) copies of West Penn's 2011Annual Reliability Report ("Report"). Please date-stamp and return the additional copy in the enclosed postage-paid, addressed envelope for the Company's files.

A copy of this Report is also being copied to the Office of Consumer Advocate and the Office of Small Business Advocate.

Sincerely,

Toy Oli-

Douglas S. Elliott President, Pennsylvania Operations (610) 921-6060 elliottd@firstenergycorp.com

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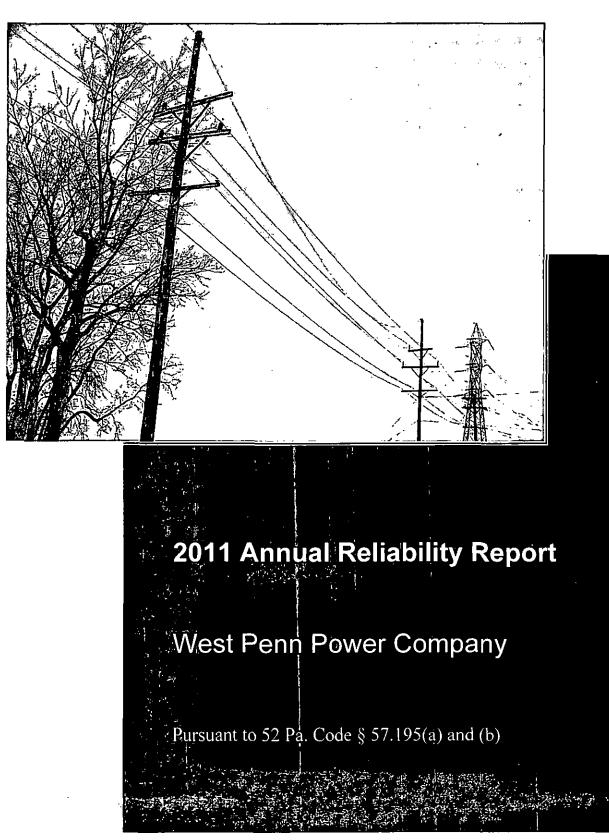
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PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU



2011 Annual Reliability Report West Penn Power Company Pursuant to 52 Pa. Code Chapter § 57.195(a) and (b)

The following 2011 Report ("Report") is submitted to the Pennsylvania Public Utility Commission ("PaPUC" or "Commission") on behalf of West Penn Power Company ("West Penn Power").

<u>Section 57.195(b)(1)</u> An overall current assessment of the state of the system reliability in the EDC's service territory including a discussion of the EDC's current programs and procedures for providing reliable electric service.

Current Assessment of the State of System Reliability

Significant benefits and improvements were realized in 2011. While this Report will provide more detail regarding the specific accomplishments of 2011, a few of the highlights are:

- CAIDI was 25% better than the Commission's 12-Month Standard in 2011 and 11% better than Benchmark
- SAIDI was 17% better than the Commission's 12-Month Standard in 2011



APR 30 2012

PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU Submitted Pursuant to \$2 PA Code § 57.195(a) and (b)

Reliability Results

The table below, taken from the 4th Quarter 2011 Joint Reliability Report, shows two reliability indices in 2011 were better than the Commission's 12-Month Standard (shown in green). The table also shows 1 reliability indices in 2011 that was better than Benchmark.

	И	Vest ['] Penn ["] Pe	ower
12-Month Rolling	Benchmark	12-Month Standard	12-Month Actual
SAIFI	1.05	1.26	1.40 ¹
CAIDI	170	204	151
SAIDI	179	257	211
Customers Served ²		715,738	<u> </u>
Number of Sustained Interruptions		19,924	<u> </u>
Customers Affected	999,988		
Customer Minutes		151,157,75	5

West Penn Power has implemented technology to measure reliability and respond to forced outage events. These include Automated Mapping/Facilities Management, Outage Management System ("OMS"), Call Center Interactive Voice Response, Computerized Work Management System and mobile technologies to support timely response to outage conditions. West Penn Power also had the benefit of a Dashboard software system for the OMS system called Obvient and a Mobile Workforce Management system called Avail.

West Penn Power has reliability programs and processes to support reliability initiatives in place to continually address and improve distribution reliability. Well-established maintenance programs are in place to ensure the existing system will continue to operate in a safe and reliable manner. West Penn Power also has maintenance programs in place to address poor performing circuits and specific line segments where reliability issues may exist, as revealed by three or more device interruptions.

¹ The higher than normal SAIFI is directly attributed to several non-excludable storm events.

² Represents the average number of customers served during the reporting period.

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Weather events continue to affect circuit reliability and reliability statistics. Major events, discussed later in this report, are excluded from statistics but can affect budgets and work plans. Other less severe weather events are included in statistics and can contribute significantly to reliability statistics, especially on an individual circuit basis.

12-Month			
Rölling	Benchmark	12-Month Standard	12-Month Actual
SAIFI	1.05	1.26	1.30
CAIDI	170	204	146
SAIDI	179	257	190

The preliminary YTD March 2012 reliability indices (shown in green) are listed in the table below:

Two of West Penn Power's reliability indices are better than the Commission's 12-Month Standard and lindices is better than Benchmark. West Penn is confident that its 2012 plan will continue to have a positive impact on reliability. <u>Section 57.195(b)(2)</u> A description of each major event that occurred during the year being reported on, including the time and duration of the event, the number of customers affected, the cause of the event and any modified procedures adopted to avoid or minimize the impact of similar events in the future.

Major Events

A major event is determined to have occurred where 10% of West Penn Power's customers are out of service for five minutes or greater as defined in 52 Pa. Code 57.192. This annual report for 2011 is based on the exclusion of major events on an individual operating company basis and is consistent with the major events reported in each of the 2011 quarterly reports. The major events for 2011, is as follows:

Major Events West Penn Power did not experience a major event during the reporting period ending December 2011. <u>Section 57.195(b)(3)</u> A table showing the actual values of each of the reliability indices (SAIFI, CAIDI, SAIDI, and if available, MAIFI) for the EDC's service territory for each of the preceding 3 calendar years. The report shall include the data used in calculating the indices, namely the average number of customers served, the number of sustained customer minutes interruptions, the number of customers affected and the minutes of interruption. If MAIFI values are provided, the number of customer momentary interruptions shall also be reported.

Reliability Indices

For the purposes of this report, all reliability reporting is based upon the PaPUC's definitions for "momentary outages" and "major events" (outage data excluded as a result of major events).

Historic 12-Month Rolling Reliability Indices ³					
	Index	2009	2010	2011	
	SAIFI	0.97	1.00	1.40	
	CAIDI	166	190	151	
West Penn	SAIDI	161	191	211	
Power	Customer Minutes	113,827,264	136,121,784	151,157,755	
	Customers Interrupted	686,453	715,735	999,988	
	Customers Served ⁴	708,940	713,122	715,738	

36-Month	West Per	nn Power
Rolling Year-End 2011	36-Month Standard	36-Month Actual
SAIFI	1.16	1.12
CAIDI	187	169
SAIDI	217	188

³ MAIFI values are not available

⁴ Represents the average number of customers served during the reporting period

<u>Section 57.195(b)(4)</u> A breakdown and analysis of outage causes during the year being reported on. including the number and percentage of service outages, the number of customers interrupted, the customer interruption minutes categorized by outage cause such as equipment failure, animal contact. tree related, and so forth. Proposed solutions to identified service problems shall be reported.

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Outages by Cause

	Selection Outages by	Cause	47 e2. E		
4th Quarter 2011 12-Month Rolling		West Penn Power			
Cause	Customer Minutes	Number of Sustained Interruptions	Customers Affected	% Based on Number of Outages	
Off Right-of-Way Trees	59,711,813	5,305	260,406	27%	
Weather	30,040,467	2,682	161,875	13%	
Unknown	14,458,608	2,102	110,080	11%	
Overhead Material	8,753,886	1,976	96,239	10%	
Public	10,892,911	1,599	122,567	8%	
Overhead Equipment	3,331,940	1,545	32,067	- 8%	
Animals	2,318,530	1,422	31,284	7%	
Overhead Wire	6,777,961	1,180	63,576	6%	
On Right-of-Way Trees	7,777,797	1,038	53,813	5%	
Underground Cable	1,830,441	533	9,733	3%	
Other	1,698,854	252	22,555	1%	
Substation Equipment	3,043,286	129	32,283	1%	
Underground Equipment	449,727	119	2,946	1%	
Underground Material	38,210	26	292	0%	
Service Equipment	33,322	16	272	0%	
TOTAL	\$151,157,755	19,924	999,988	»»	

Proposed Solutions

Reliability Improvement Program

West Penn Power maintains a Reliability Improvement Program (RIP) to help address poor performing distribution circuits. Many of the Ensure Reliability Service (ERS) programs, such as Annual Inspection and Maintenance (AIM), pole inspection, vegetation management, etc., are performed on a scheduled basis. RIP provides a way to address circuit reliability problems outside of these scheduled maintenance activities. The RIP teams conduct a detailed review of the poorest performing circuits and, if necessary, an improvement plan is developed. In addition to the poor performing circuits, the RIP teams also investigate any circuit which has been interrupted multiple times in the prior twelve-month period and corrective action is planned as necessary. To focus on isolated problems, the RIP teams also investigate any sectionalizing device (line fuse or recloser) that has operated multiple times in a twelve-month period and corrective action is planned as necessary.

In May 2011; West Penn Power implemented a program to address SAIFI on 165 circuits that had the worst twelve-month rolling SAIFI. The program involved reviewing the mainline of the circuit from the substation to the first set of protective devices and correcting any issues found that would potentially cause a circuit lockout. This work had an immediate effect on the targeted circuits. West Penn Power's SAIFI for the second half of 2011 was 7% below target which did not completely offset the high storm-related customer interruptions experienced in March and April, but did change the trend. In the first quarter of 2012, these circuits continued to reflect the SAIFI benefits achieved in 2011 and West Penn Power plans to continue the program to additional circuits.

Expanded Forestry Danger Tree Program

West Penn Power's Danger Tree Program consists of removing, or significantly reducing in height, diseased or damaged trees located outside the boundary of the right-of-way that pose a threat to service reliability and/or the integrity of the line under any weather condition. West Penn Power also began targeting live, healthy trees that pose a threat to service reliability and/or integrity of the line by uprooting, breaking, or otherwise falling into the line.

In May 2011, West Penn Power instituted a special danger tree inspection and removal on 638 miles of mainline feeder on 143 distribution circuits identified as having the worst performance from tree-caused lockouts. This program was completed at the end of July and was in addition to West'Penn Power's cycle tree trimming work that was scheduled for 2011.

Reliability-based Vegetation Management Program

Rural distribution circuits were scheduled based on a predetermined formula which factors in time since last trimmed, tree related customer minutes of interruption over at least three years, and the number of customers on the circuit. Rural circuits with the worst cumulative ranking were made highest priority in scheduling. Circuits trimmed within the past three years are not eligible for schedule trimming evaluation. Urban distribution circuits are planned on a cyclical schedule based on time since last trimmed. <u>Section 57.195(b)(5)</u> A list of the major remedial efforts taken to date and planned for circuits that have been on the worst performing 5% of circuits list for a year or more.

Worst Performing Circuits - Remedial Action

West Penn Power's Remedial Actions for its 5% Worst Performing Circuits are provided in Attachment A of this report.

Section 57.195(b)(6) A comparison of established transmission and distribution inspections and maintenance goals/objectives versus actual results achieved during the year being reported on. Explanations of any variances shall be included.

T&D Inspection and Maintenance Program

Inspecti	on and Maintenance 2011	West Pe	nn Power
្មី ំងរង្វប្រ		Planned	Completed
Forestry	Transmission (Miles)	1445	157
/ Ureally	Distribution (Miles)	2,800	3,784
Transmission	Aerial Patrols	2	2
	Groundline	8 ⁸	8
	General Inspections	5,050	5,050
Substation	Transformers	390	390
Cuboution	Breakers	271	271
	Relay Schemes	385 ⁷	385
	Capacitors	1,331	1,331
Distribution	Poles	52,395	52,395
	Reclosers	337	337
	Radio-Controlled Switches		Power has no led switches.

 ⁵ Planned Transmission miles changed from 125 to 144 due to additional mileage being added.
⁶ Planned number was 167, but reduced after discovering some of the planned poles had been inspected in 2005.

⁷ Planned number was 536, however 151 duplicate orders were removed.

<u>Section 57.195(b)(7)</u> A comparison of budgeted versus actual transmission and distribution operation and maintenance expenses for the year being reported on in total and detailed by the EDC's own functional account code of FERC account code as available. Explanations of any variances shall be included.

Budgeted vs. Actual T&D Operation & Maintenance Expenditures

T&D Operatio	on and Maintenance	(YJTD December 201	1)	
Category	YTD Actuals	YTD Budget	Variance %	Notes ^a
Distribution Administrative	(2,141,111)	(890,209)	141%	1
Distribution System Operations	1,447,661	1,391,119	4%	
Asset Management	469,601	587,144	-20%	1
Distribution Support	6,903,435	8,033,641	-14%	1
Field Operations	19,184,809	17,744,239	8%	
Distribution Forestry	5,545,104	13,691,518	-59%	1
Transmission Other	(795,697)	534,731	-249%	1
Substations	5,366,833	3,836,786	40%	1
Technical Services	2,273,468	2,421,154	-6%	
Transmission Forestry	3,303,289	2,318,254	42%	1
Transmission Projects	193,639	368,561	-47%	1
Transmission Siting	760,985	763,312	0%	
Distribution Safety Training Quality Assurance	405,132	646,913	-37%	1
Trans Reliability & System Support	117,500	136,514	-14%	1
EMS Support	741,122	725,576	2%	
Transmission System Operations	1,290,908	1,212,273	6%	
Transmission Operations Admininistrative	61,304	91,925	-33%	1
Transmission Engineering & Operations	258,430	427,269	-40%	1
Transmission Planning & Compliance	266,687	351,672	-24%	1
Transmission Engineering	2,738,779	3,097,768	-12%	1
Total	48,391,878	s: 160] 57,490,160]	· · · · · · · ·	1 7 42 " #X

^a Variance Explanations (Variances 10% or greater):

1 Variances are primarily driven by the implementation of FirstEnergy accounting policies and procedures subsequent to the merger.

<u>Section 57.195(b)(8)</u> A comparison of budgeted versus actual transmission and distribution operation and maintenance capital expenses for the year being reported on in total and detailed by the EDC's own functional account code or FERC account code as available. Explanations of any variances 10% or greater shall be included.

Budgeted vs. Actual T&D Capital Expenditures

	T&D Capital (YTD D	December 2011)		
Category	YTD Actuals	YTD Budget	Variance %	Notes *
EHV Substation	1,476,932	3,859,969	-62%	1
EHV Lines	(361,391)	3,804,002	-110%	2
Transmission Substations	3,200,292	7,437,622	-57%	3
Transmission Lines	8,517,061	21,390,630	-60%	3
Distribution Substations	9,228,291	11,988,728	-23%	3
Distribution Lines	76,243,233	44,566,738	71%	4
General Plant	24,021,270	7,087,482	239%	5
Subtransmission Lines	5,901,346	1,197,351	393%	6
Total	128,227,033	101,332,523	······································	

^a Variance Explanations

1 Reduction in work associated with TrAIL projects.

2 Engineering changes in Ft. Martin - Ronco line work resulted in a shift from capital to O&M charges.

3 Capital work associated with PJM did not materialize.

4 Primarily due to Distribution Right of Way Clearing / Widening.

5 Greensburg RDO / RHQ build-out and Smart Meters.

6 Distribution right of way clearing / widening and higher industrial new business work than anticipated.

Submitted Pursuant to 52 PA Code § 57.195(a) and (b)

<u>Section 57,195(b)(9)</u> Quantified transmission and distribution inspection and maintenance goals/objectives for the current calendar year detailed by system area (that is, transmission, substation and distribution).

T&D Inspection & Maintenance Programs – 2012 Goals / Objectives

T&D Inspection & Maintenance Programs - 2012				
Program/Project	West Penn Power			
Forestry				
Distribution	4,533 Miles			
Transmission	318.10 Miles			
Transmission				
Aerial Patrols	2			
Wood Pole Groundline	206			
Substation	•			
General Inspections	5,050			
Transformers	405			
Breakers	210			
Relay Schemes	140			
Distribution				
Capacitors	1,360			
Poles	42,180			
Reclosers	3,556			
Radio-Controlled Switches	Not Applicable			

<u>Section 57.195(b)(10)</u> Budgeted transmission and distribution operation and maintenance expenses for the current year in total and detailed by the EDC's own functional account code or FERC account code as available.

2012 T&D O&M Budget

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Due to the integration of the FirstEnergy and Allegheny companies' accounting systems at the end of the first quarter 2012, West Penn Power's operations and maintenance annual budget data is not available at this time. The annual budget data will be filed with the Commission separately when it becomes available. <u>Section 57.195(b)(11)</u> Budgeted transmission and distribution capital expenses for the current year in total and detailed by the EDC's own functional account code or FERC account code as available.

2012 T&D Capital Budget⁸.

T&D Capital - Annual 2012		
Investment Reason	Annual Budget	
Capacity	4,154,480	
Condition	8,836,187	
Facilities	5,401,834	
Forced	30,209,021	
Meter Related	2,011,450	
New Business	17,244,298	
Other	(2,594,517)	
Reliability	10,509,227	
Street Light	1,636,205	
Tools & Equipment	· 2,976,949	
Vegetation Management	31,981,095	
Total	112,366,229	

General Notes:

T&D Capital Definitions

Capacity - Costs associated with improving, relieving or correcting an existing or projected voltage or thermal condition in addition to costs associated with reinforcing the infrastructure.

Condition - Costs associated with replacement of outdated and /or poor performing equipment.

Facilities - Costs associated with regional facilities structures and improvements.

Forced - Cost associated with storm outage restoration, failed substation or line equipment and devices, regulatory required and relocations of facilities associated with roadways and bridge projects.

Meter Related - Costs associated with the installation / replacement or removal of meters.

New Business - Costs associated with providing service to Residential, Commercial and Industrial customers as well as costs associated with the removal, relocation, etc. associated with New Business (E.G. service upgrades, removals).

Other - Costs associated with FirstEnergy claims against an outside party, costs associated with joint occupancy of utility poles and costs associated miscellaneous type categories, such as accounting type entries.

Reliability - Expenses incurred to improve/reinforce the reliability of the infrastructure assets. Examples include SCADA/MOABS additions, rectosure addition to Dx lines, relaying replacements, transrupters, CRI improvements, TX reliability index, etc. These costs may or may not be directed by a regulatory body.

Streetlight - Costs associated with all forms of street lighting and lighting services. Includes community lighting, dusk to dawn and area lighting for private customers, ornamental lighting, public street and highway lighting, for municipalities and associations.

Tools & Equipment - Capital expenses associated with the purchase of tools and work equipment. This also includes transportation tools and equipment.

Vegetation Management - Costs associated with planned and unplanned tree trimming and vegetation management programs.

⁸ In 2012, FirstEnergy adopted a modified budget reporting format that reflects capital data based on the company's internal reporting investment reasons.

Note: Budget subject to change.

<u>Section 57.195(b)(12)</u> Significant changes, if any, to the transmission and distribution maintenance programs previously submitted to the Commission.

Changes to T&D Maintenance Programs⁹

West Penn Power continues to review its inspection and maintenance practices to confirm that they are consistent with industry standards and that they support the achievement of the applicable Commission approved reliability benchmarks and standards. The 2011 revisions to the inspection and maintenance practices are as follows:

<u></u>	mmary of Revisions 2011
Distribution Program Changes	
Equipment/Program	Summary of Change
Distribution Pole Inspections	Visual inspection of all poles Elimination of retreatment program Conditions reasonably expected to endanger life or property repaired/replaced within 30 days. All remaining conditions are evaluated and prioritized on a case-by-case basis
Recloser Inspections	Visually inspect reclosers annually. The annual inspection will consist of counter readings and the field inspection
Distribution Below-Ground Transformer Inspections	No more than 8 years
Distribution Overhead Line Inspections	Adopt FirstEnergy program (elimination of AIM program)
Vegetation Management	Standard specification - prune to achieve 5 years of clearance. Portions of a circuit that experience high customer interruption minutes due to tree-caused outages may be targeted to receive the Standard Specification as well as enhanced removal techniques. A proactive Inspect/Maintain process will be utilized for portions of a circuit that have not experienced significant reliability issues - this may include extension of a cycle which will not exceed 8 years.
Substation Practices - No Significant Chang	les
Transmission Practices - No Significant cha	nges

⁹ The distribution pole inspection program was submitted for revision on April 29, 2011 and approved on June 13, 2011 effective immediately. Modifications to the recloser inspections, distribution below-ground transformer inspections, distribution overhead line inspections and the vegetation management programs were submitted on November 1, 2011 as an addendum to the 3Q 2011 reliability report and approved on December 28, 2011; however, they were not effective until January 1, 2012.

ATTACHMENT A

Worst Performing Circuits – Remedial Action

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West Penn Power			
Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work
		Added isolating points and fault indicators as part of CAIDI improvement program	Complete
WATERVILLE	WATERVILLE	Install monitoring devices on the circuit.	To be completed in 2012
		Mainline tree trimming	To be completed in 2012
		Install automatic air switches on the subtransmission feeding the substation	Complete
	}	Outage maps were created to identify outage and sectionalizing locations	Complete
EAST MILLSBORO EAST MILLSBORO		Utilized outage data to identify outage causes and sources of lockouts	Complete
		Mainline hardware review	Complete
		Mainline tree trimming	To be completed in 2012
MARIANNA TEN MILE		Mainline hardware review	To be completed in 2012
		Mainline tree trimming	To be completed in 2012

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BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

2011 Annual Reliability Report – West Penn Power Company – Pursuant to 52 Pa. Code § 57.195(a) and (b)

APR 30 2012

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PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a true and correct copy of the foregoing document upon the individuals listed below, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant).

Service by overnight United Parcel Service, as follows:

Rosemary Chiavetta, Secretary Pennsylvania Public Utility Commission Commonwealth Keystone Building 400 North Street, 2nd Floor Harrisburg, PA 17120

Service by overnight United Parcel Service and by electronic mail, as follows:

Irwin Popowsky Tanya McCloskey Office of Consumer Advocate 5th Floor Forum Place 555 Walnut Street Harrisburg, PA 17101 <u>spopowsky@paoca.org</u> <u>tmccloskev@paoca.org</u>

David J. Dulick Pennsylvania Rural Electric Assn. 212 Locust Street, 2nd floor Harrisburg, PA 17101

Service by electronic mail, as follows:

Darren Gill Bureau of Technical Utility Services Pennsylvania Public Utility Commission dgill@state.pa.gov Steven Gray Office of Small Business Advocate 300 North 2nd Street Harrisburg, PA 17101 sgray@state.pa.gov

Scott J. Rubin Utility Workers Union of America 333 Oak Lane Bloomsburg, PA 17815-2036

Yasmin Snowberger Dan Searfoorce Bureau of Technical Utility Services Pennsylvania Public Utility Commission <u>vsnowberge@pa.gov</u> <u>dsearfoorc@state.pa.gov</u>

Annette L. Lusty FirstEnergy Service Company 76 S. Main Street Akron, OH 44308 (330) 374-6543 <u>lustya@firstenergycorp.com</u>

Dated: April 30, 2012

