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November 1, 2013

# **RECEIVED**

### **VIA UNITED PARCEL SERVICE**

Rosemary Chiavetta, Secretary Pennsylvania Public Utility Commission Commonwealth Keystone Building 400 North Street, 2<sup>nd</sup> Floor Harrisburg, PA 17120 NOV - 1 2013

PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU

Re: Joint 3<sup>rd</sup> Quarter 2013 Reliability Report – Metropolitan Edison Company, Pennsylvania Electric Company and Pennsylvania Power Company – Public Version

Dear Secretary Chiavetta:

Pursuant to 52 Pa. Code § 57.195(d) and (e), enclosed for filing on behalf of Metropolitan Edison Company, Pennsylvania Electric Company and Pennsylvania Power Company (collectively, the "Companies") are two copies of the Joint 3<sup>rd</sup> Quarter 2013 Reliability Report — Public Version ("Joint Report"). Please date stamp the additional copy and return it in the postage-prepaid envelope provided.

On December 22, 2004, the Companies filed an Application for Protective Order at Docket No. L-00030161. The Application was granted, allowing the Companies to file proprietary versions of the quarterly reliability reports. The Proprietary Version of this Joint Report is being filed under separate cover.

Please feel free to contact me if you have any questions or need additional information regarding this matter.

Sincerely.

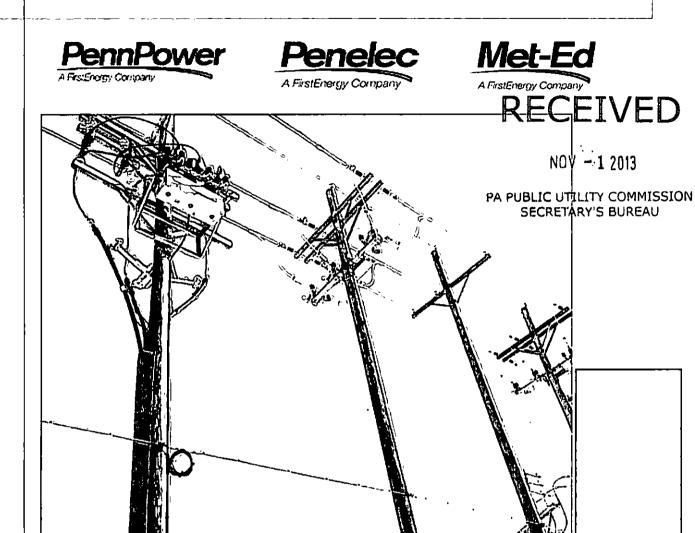
David J. Karafa

President, Pennsylvania Operations

#### Enclosures

c: As Per Certificate of Service

- D. Gill Bureau of Technical Utility Services (via email and first class mail)
- D. Searfoorce Bureau of Technical Utility Services (via email and first class mail)



Joint 2013 3<sup>rd</sup> Quarter Reliability Report

Pennsylvania Power Company, Pennsylvania Electric Company and Metropolitan Edison Company

Pursuant to \$2 Pa. Code § 57.195(d) and (e)

# Joint 3<sup>rd</sup> Quarter 2013 Reliability Report – Pennsylvania Power Company, Pennsylvania Electric Company and Metropolitan Edison Company

<u>Section 57.195(e)(1):</u> A description of each major event that occurred during the preceding quarter, including the time and duration of the event, the number of customers affected, the cause of the event and any modified procedures adopted in order to avoid or minimize the impact of similar events in the future<sup>1</sup>

### Major Events

EirstEnergy Company	Customers Affected	Time and Dui	ation of the Event	Cause of the Event	Commission Approval Status
		Duration	6 hours and 13 minutes		Pending;
Penelec <sup>2</sup>	43,261	Start Date/Time	September 10, 2013 5:49 pm	Transmission Outage	Request for Exclusion submitted to
		End Date/Time	September 11, 2013 12:02 am		PaPUC on October 9, 2013

<sup>&</sup>lt;sup>1</sup> For purposes of this Joint Report, all reliability reporting is based upon the Pennsylvania Public Utility Commission's definitions for momentary outages and major events pursuant to 52 Pa. Code § 57.192.

<sup>&</sup>lt;sup>2</sup> Penelec's reliability index values and outages by cause assume approval of the Major Event Exclusion request submitted to the Commission on October 9, 2013.

<u>Section 57.195(e)(2):</u> Rolling 12-month reliability index values (SAIFI, CAIDI, SAIDI, and if available MAIFI) for the EDC's service territory for the preceding quarter. The report shall include the data used in calculating the indices, namely the average number of customers served, the number of sustained customer interruptions, the number of customers affected, and the customer minutes of interruption. If MAIFI values are provided, the report shall also include the number of customer momentary interruptions.

Reliability Index Values

20.2042		enn Powe	r ,		Penelec			Met-Ed	{
3Q 2013 (12-Mo Rolling)	Benchmark	12-Month Standard	12-Month Actual	Benchmark	12-Month Standard	12-Month Actual	Benchmark	12-Month Standard	12- Month Actual
SAIFI	1.12	1.34	1.15	1.26	1.52	1.36	1.15	1.38	1.09 <sup>5</sup>
CAIDI	101	121	143 <sup>3</sup>	117	141	115 <sup>4</sup>	117	140	102 <sup>5</sup>
SAIDI	113	162	164 <sup>3</sup>	148	213	157	135	194	111 <sup>5</sup>
MAIFI			0.45			3.42			1.92
Customers Served <sup>6</sup>	159,035			583,531	549,748				
Number of Sustained Interruptions		3,185			10,675		7,166		
Customers Affected		183,353			794,196		599,019		
Customer Minutes	26,141,517		9	1,534,188		61,234,405			
Number of Customer Momentary Interruptions		71,196			1,993,741		1	,054,207	

<sup>&</sup>lt;sup>3</sup> Penn Power's higher-than-normal CAIDI and SAIDI is directly attributed to two non-excludable storm events that occurred on April 10 and June 25 as well as a transmission outage that occurred on June 23, 2013.

<sup>&</sup>lt;sup>4</sup> Penelec's CAIDI is better than benchmark due to the limited number of minor storm events this year. Penelec continues to inspect 1/5th of its entire distribution network on an annual basis. Items that are deemed likely to cause an outage are noted and repaired. Additionally, the Company has implemented 16 to 24 hour shift coverage in additional operating centers to speed response time to distribution system trouble.

<sup>&</sup>lt;sup>5</sup> Met-Ed's CAIDI is better than benchmark due a continued focus sectionalizing opportunities. Met-Ed's SAIFI and SAIDI are also better than benchmark.

<sup>&</sup>lt;sup>6</sup> Represents the average number of customers served during the reporting period

<u>Section 57.195(e)(3):</u> Rolling 12-month reliability index values (SAIFI, CAIDI, SAIDI, and if available, MAIFI) and other pertinent information such as customers served, number of interruptions, customer minutes interrupted, number of lockouts, and so forth, for the worst performing 5% of the circuits in the system. An explanation of how the EDC defines its worst performing circuits shall be included.

### Worst Performing Circuits - Reliability Indices

The methodology used to identify worst performing circuits is based on both System Average Interruption Frequency Index ("SAIFI") and System Average Interruption Duration Index ("SAIDI"). The methodology consists of the following steps:

- 1. For each circuit calculate a circuit SAIFI using only distribution-caused outages.
- 2. Select the worst 20% of circuits based on the highest circuit SAIFI.
- 3. Rank the selected circuits based on SAIDI using only distribution-caused customer minutes.
- 4. Select 5% of the circuits based on the highest customer minutes. These circuits are then identified as the worst performing circuits.

Penn Power, Penelec and Met-Ed's rankings of the 5% Worst Performing Circuits are provided in Attachment A to this report.

<u>Section 57.195(e)(4):</u> Specific remedial efforts taken and planned for the worst performing 5% of the circuits identified in paragraph (3).

# Worst Performing Circuits - Remedial Actions

Penn Power, Penelec and Met-Ed's Remedial Actions for Worst Performing Circuits are provided in Attachment B to this report.

<u>Section 57.195(e)(5):</u> A rolling 12-month breakdown and analysis of outage causes during the preceding quarter, including the number and percentage of service outages, the number of customers interrupted, and 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.

#### Outages by Cause

## Outages by Cause - Penn Power<sup>7</sup>

	Outages by C	ause		
3nd Quarter 2013 12-Month Rolling		Penn Pov	ver	
Cause	Customer Minutes	Number of Sustained Interruptions	Customers Affected	% Based on Number of Outages
LIGHTNING	2,155,354	462	14,649	14.51%
TREES/NOT PREVENTABLE	6,069,420	422	17,322	13.25%
ANIMAL	699,573	411	8,426	12.90%
BIRD	314.568	377	4,194	11.84%
EQUIPMENT FAILURE	1,528,446	329	27,070	10.33%
TREES OFF ROW-TREE	7,725,301	307	45,891	9.64%
LINE FAILURE	2,074,347	265	17,232	8.32%
TREES OFF ROW-LIMB	1,088,439	102	7,898	3.20%
UNKNOWN	261,221	77	2,724	2.42%
VEHICLE	1,009,812	75	7,359	2.35%
OVERLOAD	231,748	64	3,169	2.01%
FORCED OUTAGE	432,956	57	9,568	1.79%
TREES - SEC/SERVICE	79,426	51	254	1.60%
PREVIOUS LIGHTNING	56,707	50	363	1.57%
TREES ON ROW	1,345,590	44	3,250	1.38%
HUMAN ERROR -NON-COMPANY	344,391	28	2,404	0.88%
CUSTOMER EQUIPMENT	224,129	16	7,693	0.50%
TREES/PREVENTABLE	15,631	10	693	0.31%
HUMAN ERROR - COMPANY	4,314	9	118	0.28%
OBJECT CONTACT WITH LINE	392,061	9	2,242	0.28%
UG DIG-UP	19,690	8	186	0.25%
VANDALISM	59,524	6	568	0.19%
WIND	2,747	2	3	0.06%
CONTAMINATION	2,001	1	29	0.03%
OTHER ELECTRIC UTILITY	636	1	4	0.03%
PLANNED OUTAGE	2,772	1	21	0.03%
SWITCHING ERROR	713	1	23	0.03%
I(otal)	26,141,517	3,185	183,353	100!00%

<sup>&</sup>lt;sup>7</sup> In May 2013, new outage cause codes were added to help better categorize tree related outages. Definitions of these codes are as follows:

Trees On ROW - An outage caused by tree that has grown into or contacted a Penn Power primary within the distribution clearing zone Trees Off ROW-Tree - An outage caused by tree that has fallen into a Penn Power primary outside the distribution clearing zone Trees Off ROW-Limb - An outage caused by tree limb that has fallen into a Penn Power primary outside the distribution clearing zone Trees - Sec/Service - An outage caused by tree that has grown into or contacted a Penn Power secondary or service.

#### Proposed Solutions - Penn Power

#### Lightning

The number of lightning-caused outages is mitigated through Penn Power's reliability improvement strategy. This includes inspection and maintenance practices such as circuit inspections and annual main feed inspections. These inspections can locate blown lightning arresters, broken grounds and other condition items which could lead to higher lightning-caused outages. Substations also contain lightning protection through equipment such as arresters and grounding. These items are maintained by the substation group based on the substation practices. Distribution protection coordination reviews allow for a fewer number of customers affected and quicker isolation of the affected circuit sections. In addition, Penn Power conducts periodic reviews of multi-operation devices to identify causes and trends and will engineer solutions to reduce the frequency of the outages.

#### Trees/Not-Preventable / Trees Off ROW-Tree

Forestry Services reviews the "Trees/Not-Preventable" outages to see if there has been a high frequency of occurrences on the circuit. A patrol of the circuit is conducted to identify trees that need to be trimmed or removed to avoid future outages. In addition, line and forestry personnel patrol for danger/priority trees as part of their daily work routine. The danger/priority tree program identifies off right-of-way trees that present a hazard to power lines. Under this program all circuits that have had "Trees Non-Preventable" caused outages are prioritized based on customer outage minutes. A patrol of the three-phase backbone of each circuit is performed and foresters work with private property owners to remove any potentially dangerous tree conditions.

#### Animal

Animal guards are installed on equipment where a high frequency of animal related outages is experienced. When possible, animal guards are installed at the time service is restored for the outages caused by animals.

## Outages by Cause - Penelec<sup>8</sup>

	Outages by	Cause		. ;
3nd Quarter 2013		Pene	lec	
12-Month Rolling				,
Cause	Customer Minutes	Number of Sustained Interruptions	Customers Affected	% Based on Number of Outages
EQUIPMENT FAILURE	20,104,705	2880	225,694	26.98%
UNKNOWN	7,633,409	1,952	106,321	18.29%
ANIMAL	1,760,876	914	33,708	8.56%
LINE FAILURE	9,524,174	799	90,113	7.48%
TREES/NOT PREVENTABLE	12,551,940	696	58,743	6.52%
FORCED OUTAGE	5,420,341	675	44,530	6.32%
TREES OFF ROW-TREE	17,024,480	647	68,818	6.06%
LIGHTNING	3,455,058	403	29,879	3.78%
VEHICLE	4,314,710	312	31,580	2.92%
BIRD	299,717	265	4,103	2.48%
TREES - SEC/SERVICE	255,447	216	701	2.02%
HUMAN ERROR - COMPANY	182,803	191	2,831	1.79%
TREES OFF ROW-LIMB	1,840,630	147	19,153	1.38%
HUMAN ERROR -NON-COMPANY	922,066	118	11,140	1.11%
CUSTOMER EQUIPMENT	2,248,541	92	21,780	0.86%
OVERLOAD	475,560	77	12,431	0.72%
TREES ON ROW	77,929	56	432	0.52%
OTHER ELECTRIC UTILITY	122,896	52	1,734	0.49%
UG DIG-UP	93,091	45	369	0.42%
PREVIOUS LIGHTNING	49,097	31	158	0.29%
OBJECT CONTACT WITH LINE	265,937	24	1,914	0.22%
CONTAMINATION	1,032,416	23	13,882	0.22%
VANDALISM	394,272	19	2,145	0.18%
FIRE	242,047	9	2,345	0.08%
TREES/PREVENTABLE	23,291	9	206	0.08%
WIND	1,159,105	7	5,260	0.07%
ICE	654	6	6	0.06%
OTHER UTILITY-NON ELEC	14,226	6	150	0.06%
SWITCHING ERROR	44,770	4	4,070	0.04%
Total	91,534,188	10,675		100!00%

<sup>&</sup>lt;sup>8</sup> In May 2013, new outage cause codes were added to help better categorize tree related outages. Definitions of these codes are as follows:

Trees On ROW - An outage caused by tree that has grown into or contacted a Penelec primary within the distribution clearing zone Trees Off ROW-Tree - An outage caused by tree that has fallen into a Penelec primary outside the distribution clearing zone Trees Off ROW-Limb - An outage caused by tree limb that has fallen into a Penelec primary outside the distribution clearing zone Trees - Sec/Service - An outage caused by tree that has grown into or contacted a Penelec secondary or service.

#### Proposed Solutions – Penelec

#### **Equipment Failure**

Porcelain cutout failures represent approximately one-third of the equipment failure outages in Penelec's territory. To address this cause, Penelec continues to replace porcelain cutouts with polymer cutouts on the main feed three-phase backbone of circuits.

Inspection and maintenance practices, such as overhead circuit inspections, identify and correct potential equipment-related problems before they cause an outage. Penelec is inspecting the entire circuit from substation to meter which includes the main three-phase backbone system on a five-year cycle. Off-cycle inspections are performed based on circuit performance and may include infrared scanning to assist in identification of potential equipment problems.

To reduce the impact of outages, distribution circuit protection coordination reviews and the enhanced circuit protection schemes that result provide isolation of equipment failures. To limit the number of multiple outages at the same location, Engineering Services continually monitors and investigates devices experiencing three or more outages in sixty days to identify causes and trends of equipment failures and other outages.

#### Unknown

Outage-by-cause analysis is one of the tools used to analyze and develop circuit and system reliability improvement plans. If the troubleshooter cannot accurately identify the cause of an outage, that outage is coded with an unknown cause. To limit the number of unknown outages, and to identify the outage cause, troubleshooters are directed to continue to patrol a circuit, even after service has been restored, as long as those patrols will not interfere with restoration of other customers. Significant unknown outages are reviewed by Reliability Engineering, with post outage circuit inspections being completed as needed by reliability inspectors.

#### Animal

Animal guards are installed on equipment where a high frequency of animal related outages is experienced. When possible, animal guards are installed at the time service is restored for the outages caused by animals.

## Outages by Cause - Met-Ed9

ক্ষাক্ৰাক্ৰ নি সকলে কেন্দ্ৰ	Outages by C	aŭse	• (	
3nd Quarter 2013 12-Month Rolling		Met-	Ed	
Cause	Customer Minutes	Number of Sustained Interruptions	Customers Affected	% Based on Number of Outages
EQUIPMENT FAILURE	18,232,006	2,101	213,358	29.32%
ANIMAL	1,510,453	1,005	17,139	14.02%
UNKNOWN	4,061,388	855	50,424	11.93%
LINE FAILURE	7,066,056	535	48,143	7.47%
TREES/NOT PREVENTABLE	5,570,627	531	39,225	7.41%
TREES OFF ROW-TREE	6,477,461	359	40,297	5.01%
LIGHTNING	2,884,795	348	29,347	4.86%
FORCED OUTAGE	4,008,044	320	70,308	4.47%
VEHICLE	5,651,317	288	36,998	4.02%
BIRD	378,274	200	4,346	2.79%
TREES OFF ROW-LIMB	1,940,554	147	13,342	2.05%
TREES ON ROW	732,770	104	4,792	1.45%
OVERLOAD	387,099	74	4,636	1.03%
TREES - SEC/SERVICE	120,936	57	389	0.80%
HUMAN ERROR -NON-COMPANY	592,167	53	5,383	0.74%
TREES/PREVENTABLE	318,033	36	2,923	0.50%
PREVIOUS LIGHTNING	27,556		159	0.45%
UG DIG-UP	74,601	29	357	0.40%
HUMAN ERROR - COMPANY	396,125	25	8,623	0.35%
OBJECT CONTACT WITH LINE	682,212	25	5,316	
CUSTOMER EQUIPMENT	18,648	15	263	0.21%
WIND	22,925	7	63	0.10%
OTHER ELECTRIC UTILITY	18,294	6	2,510	0.08%
VANDALISM	13,686	6	55	0.08%
OTHER UTILITY-NON ELEC	40,899	4	429	0.06%
FIRE	5,847	_3	162	0.04%
CONTAMINATION	1,632	1	32	0.01%
Total	61,234,405	7,166	599,019	100!00%

<sup>&</sup>lt;sup>9</sup> In May 2013, new outage cause codes were added to help better categorize tree related outages. Definitions of these codes are as follows:

Trees On ROW - An outage caused by tree that has grown into or contacted a Met-Ed primary within the distribution clearing zone Trees Off ROW-Tree - An outage caused by tree that has fallen into a Met-Ed primary outside the distribution clearing zone Trees Off ROW-Limb - An outage caused by tree limb that has fallen into a Met-Ed primary outside the distribution clearing zone Trees - Sec/Service - An outage caused by tree that has grown into or contacted a Met-Ed secondary or service

#### Proposed Solutions - Met-Ed

#### Equipment Failure

The number of equipment failures is mitigated by way of inspection and maintenance practices, such as circuit inspections and others. Further, distribution circuit protection coordination reviews and the enhanced circuit protection schemes that result will provide isolation of equipment failures and lessen the impact of outages to a smaller number of customers. In addition, the Engineering Department periodically conducts a multi-operation device review to identify causes and trends of equipment failures and other outage causes. Engineering then plans accordingly to repair or replace facilities.

#### Animal

Animal guards are installed on equipment where a high frequency of animal-related outages is experienced. When possible, animal guards are installed at the time service is restored for the outages caused by animals. In addition, Met-Ed requires animal guards to be installed on all new overhead and underground riser installations.

#### Unknown

Outage-by-cause analysis is one of the tools used to analyze and develop circuit and system reliability improvement plans. During the investigation of an outage, if the troubleshooter cannot accurately identify the cause of an outage, that outage is coded with an unknown cause. To limit the number of unknown outages and to identify the outage cause, troubleshooters are directed to continue to patrol a circuit even after service has been restored, as long as those patrols will not interfere with restoration of other customers. Significant unknown outages are reviewed by reliability engineering, with post outage circuit inspections being completed as needed.

<u>Section 57.195(e)(6):</u> Quarterly and year-to-date information on progress toward meeting transmission and distribution inspection and maintenance goals/objectives (for first, second and third quarter reports only).

T&D Inspection and Maintenance Programs

Jana Strán	and Maintenance	Pei	nn Powe	er.		Pēnelec			Met-Ed	
, ilizibection	2013	Planned	Com	pleted	Planned	Com	pleted	Planned	Com	pleted
		Annual	3Q	YTD	Annual	3Q	ΥŢD	Annual	3Q	YTD
Forestry	Transmission (Miles)	77.97	15.11	21.30	422.30	53.26	234.35	395.17	0	172.72
lolestry	Distribution (Miles)	1,183	358	929	4,636	1,159	3,171	2,837	563	1,861
Transmission	Aerial Patrols	2	0	1	2	0	1	2	1	2
1141131111331011	Groundline	0	0	0	1,268	1,152	1,597	0	0	0
	General Inspections	924	231	693	4,895	1,227	3,686	2,592	648	1,944
Substation	Transformers	126	57	126	687	65	679	326	185	306
Substation	Breakers	47	26	35	310	34	272	147	52	117
	Relay Schemes	40	17	26	189	48	168	321	88	20910
	Capacitors	1,007	0	1,009	8,677	0	8,677	4,691	0	4,691
Distribution	Poles	10,900	2,291	5,728	41,111	14,083	37,731	31,159	2,863	27,911
Pistribution	Reclosers	773	131	773	2,568	2,574	2,574	1,033	663	1,033
	Radio-Controlled Switches		wer has no olled switch		2,294	502	1,651	130	31	96

General Note:

Unless specified otherwise, all inspections are reported on a unit basis rather than on a location basis.

<sup>&</sup>lt;sup>10</sup> The number of relay schemes completed year to date as of the end of the second quarter was incorrectly reported as 251. This has been revised to 121 completed year to date at then end of the second quarter.

Section 57.195(e)(7): Quarterly and year-to-date information on budgeted versus actual transmission and distribution operation and maintenance expenditures in total and detailed by the EDC's own functional account code as available. (For first, second and third quarter reports only).

Budgeted vs. Actual T&D Operation & Maintenance Expenditures<sup>11</sup>

il .	A STATE OF THE STA		nn Power		•	
		T&D O&M - 30			0010000	10.1
	Category	Q3 Actuals	Q3 Budget	Q3 YTD Actuals	Q3 YID Budget	Annual Budget
	nsmission			- 43		
	Operation Supervision & Engineering	0	0	(1)	0	
	Load Dispatching	28,904	22,404	95,194	67,211	
565	Transmission of Electricity by Others	2,151,536	3,131,091	5,443,111	9,352,376	12,503,411
	Miscellaneous Transmission Expenses	8,710	42,683	24,524	129,212	172,213
568	Maintenance Supervision & Engineering	1,569	(649)	6,126	(1,756)	(2,405)
569	Maintenance of Structures	6,053	17,824	16,636	50,222	68,502
570	Maintenance of Station Equipment	2,559	1,202	4,085	3,516	4,628
571	Maintenance of Overhead Lines	2,707	6,556	194,357	8,353	14,222
573	Maintenance of Miscellaneous Transmission Plant	380	2	(1,678)	5	7
575	Market Administration, Monitoring & Compliance Services	5,310	5,750	17,816	17,250	23,000
Tran	nsmission Total	2,207,727	3,226,862	5,800,170	9,626,388	12,873,193
Dist	ribution					
580	Operation Supervision & Engineering	47	0	(2,613)	0	81,257
582	Station Expenses	3,488	15,698	7,673	47,294	63,940
	Overhead Line Expenses	16,723	0	20,786	0	0
584	Underground Line Expenses	56,321	72,615	140,749	212,478	279,703
586	Meter Expenses	19,789	29,013	59,112	82,606	108,157
588	Miscellaneous Distribution Expenses	220,662	264,401	787,783	715,245	1,007,020
589	Rents	75,784	86,065	268,388	256,907	342,528
590	Maintenance Supervision & Engineering	29,761	14,032	81,905	30,514	39,663
592	Maintenance of Station Equipment	188,741	40,891	545,293	78,114	110,396
	Maintenance of Overhead Lines	2,277,159	1,267,765	5,833,954	3,966,705	
	Maintenance of Underground Lines	369,580	0	1,011,537	0	
	Maintenance of Street Lighting & Signal Systems	103,667	62,052		241,395	305,675
597	Maintenance of Meters	193,787	130,465	524,247	382,169	505,111
598	Maintenance of Miscellaneous Distribution Plant	80,559	101,557		286,447	
Dist	ribution Total	3,636,068	2,084,554	9,848,507	6,299,873	8,412,104
	n Power Grand Total	5,843,795				21,285,297

<sup>&</sup>lt;sup>11</sup> Budgets are subject to change

		Penelec	har 2042	=	
Category	T&D O&M - 30			Q3 YTD Budget	Annual Budget
Transmission	QJ ACIDAIS	Q3 Dauget	WS TID ACCUSES	Q3 11D Dudget	Hilling Dudger
560 Operation Supervision & Engineering	17,609	28,800	30,188	63,252	69,161
561 Load Dispatching	134,765	172,422		498,184	656,152
562 Station Expenses	919	112,422		450,104	030,132
563 Overhead Lines Expenses	6,319	10,364	268,960	289,627	355,919
565 Transmission of Electricity by Others	2,694,959	2,468,255		3,908,080	6,376,335
566 Miscellaneous Transmission Expenses	68,009	350,891		1,047,850	1,387,159
567 Rents	683,846	636,913	2,016,100	1,920,778	2,566,332
568 Maintenance Supervision & Engineering	234,149	33,722	393,524	93,993	122,011
569 Maintenance of Structures	83,033	84,797	244,714	239,078	326,047
570 Maintenance of Station Equipment	214,673	106,927	1,196,004	314,343	410,675
571 Maintenance of Overhead Lines	1,058,126	802,701	3,895,204	2,395,485	3,198,069
572 Transmission-Maintenance Of Underground Lines	225	0	571	0	0
573 Maintenance of Miscellaneous Transmission Plant	6,589	1	55,007	4	5
575 Market Administration, Monitoring & Compliance Services	11,009	15,150	40,201	45,451	60,602
Transmission Total	5,214,228	4,710,946	13,163,605	10,816,126	15,528,467
Distribution			1 - 1 - 1		
580 Operation Supervision & Engineering	36,134	26,560	123,583	108,155	541,782
581 Load Dispatching	96,941	110,992	271,150	313,891	410,428
582 Station Expenses	4,818	0	45,308	0	0
583 Overhead Line Expenses	418,945	14,965	476,890	52,390	62,112
584 Underground Line Expenses	248,575	216,245	615,206	648,734	864,979
585 Distribution-Street Lighting & Signal System Expenses	0	0	(655)	0	0
586 Meter Expenses	146,761	167,901	437,494	481,379	629,820
588 Miscellaneous Distribution Expenses	1,676,783	951,655	4,773,454	2,658,300	3,747,334
589 Rents	416,980	402,459	1,163,366	1,210,600	1,616,266
590 Maintenance Supervision & Engineering	140,242	68,635	387,130	150,296	195,781
592 Maintenance of Station Equipment	1,158,628	1,434.829	2,919,528	4,161,918	5,547,134
593 Maintenance of Overhead Lines	4,293,912	3,640,154	13,363,966	10,479,897	13,777,742
594 Maintenance of Underground Lines	222,231	770	1,086,933	2.198	2,858
595 Maintenance Line Transformer	22,726	0	22,726	0	0
596 Maintenance of Street Lighting & Signal Systems	176,758	580,546		1,726,529	2,329,580
597 Maintenance of Meters	487,922	515,291	1,366,887	1,509,685	2,015,938
598 Maintenance of Miscellaneous Distribution Plant	461,273	484,338		1,364,885	1,861,456
Distribution Total	10,009,629	8,615,339	29,284,840	24,868,858	33,603,210
Penelec Grand Total		13,326,284			

(y ************************************		T8D 08M - 30	Met-Ed DYTD Septem	ber 2013		
	Сатедогу	Q3 Actuals	Q3 Budget	Q3 YTD Actuals	Q3 YTD Budget	Annual Budget
	smission					
	Operation Supervision & Engineering	81,146	24,282	91,855	53,233	58,774
	Load Dispatching	234,618	586,425	995,612	1,664,585	2,196,993
	Station Expenses	11,357	0	44,062	0	0
563	Overhead Lines Expenses	2,625	2,650	17,904	24,767	24,767
565	Transmission of Electricity by Others	2,850,390	2,764,744	4,661,442	4,802,524	7,567,268
566	Miscellaneous Transmission Expenses	112,775	374,232	322,172	1,172,306	1,539,734
567	Rents	108,161	73,062	277,753	219,186	292,248
568	Maintenance Supervision & Engineering	257,898	29,843	397,992	83,318	108,178
569	Maintenance of Structures	70,718	76,267	211,743	215,046	293,263
	Maintenance of Station Equipment	439,162	407,390	1,236,101	1,359,809	1,829,093
571	Maintenance of Overhead Lines	1,160,184	762,967	4,027,295	2,288,864	3,051,933
573	Maintenance of Miscellaneous Transmission Plant	14,211	24	38,816	6,836	7,170
575	Market Administration, Monitoring & Compliance Services	11,580	18,809	40,779	56,426	75,235
Trai	smission Total	5,354,827	5,120,695	12,363,526	11,946,902	17,044,657
Dist	ribution			, , , , , , , , , , , , , , , , , , ,	, ,	
580	Operation Supervision & Engineering	14,341	22,044	34,648	53,746	418,679
	Load Dispatching	62,102	91,316	180.349	251,585	333,270
	Station Expenses	264,601	437,943	602.862	1,154,847	1,518,279
	Overhead Line Expenses	238,691	8,317	254,577	319,173	319,448
584	Underground Line Expenses	384	147,783	(3,473)	443,348	591,130
585	Distribution-Street Lighting & Signal System Expenses	263	0	263	0	0
586	Meter Expenses	183,979	141,822	465,487	399,375	529,568
588	Miscellaneous Distribution Expenses	1,215,714	(485,876)	3,805,147	(1,498,482)	(1,707,739)
589	Rents	135,218	130,433	424,797	391,298	521,731
590	Maintenance Supervision & Engineering	126,338	61,417	347,572	134,463	175,141
591	Maintenance of Structures	2,344	3,972	7,799	11,584	15,607
	Maintenance of Station Equipment	689,531	670,278	1,900,128	2,119,416	2,877,573
	Maintenance of Overhead Lines	5,986,560	3,625,199	15,139,082	10,886,004	14,531,610
	Maintenance of Underground Lines	1,030,794	145,672	2,439,452	438,523	585,621
596	Maintenance of Street Lighting & Signal Systems	121,312	143,570	444,699	432,326	577,427
597	Maintenance of Meters	526,033	521,015	1,551,385	1,553,611	2,078,356
598	Maintenance of Miscellaneous Distribution Plant	420,516	653,520		1,867,910	2,521,029
Dist	ribution Total	11,018,721	6,318,426	28,792,215	18,958,728	25,886,732
	Ed[Grand] Total		11,439,120		30,905,629	42,931,389

<u>Section 57.195(e)(8):</u> Quarterly and year-to-date information on budgeted versus actual transmission and distribution capital expenditures in total and detailed by the EDC's own functional account code or FERC account code as available. (For first, second and third quarter reports only).

Budgeted vs. Actual T&D Capital Expenditures<sup>m</sup>

	Penn Power							
T&D Capital - 3Q I/YTD September 2013.								
Category	Q3 Actuals	Q3 Budget	Q3 YTD Actuals	Q3 YTD Budget	Annual Budget			
Capacity	155,949	62,188	1,456,476	1,824,017	1,898,953			
Condition	479,053	783,685	1,083,603	1,846,420	2,564,631			
Facilities	695	•	8.520	1,501	1,501			
Forced	2,301,159	1,566,379	4,828,068	4,765,499	6,271,967			
Meter Related	193,059	50,070	442,637	137,826	187,050			
New Business	1,467,362	556,289	3,830,799	1,904,618	2,438,400			
Other	120,404	300,287	1,962,754	647,512	813,787			
Reliability	636,603	1,768,126	1,442,350	3,473,093	5,028,877			
Street Light	86,132	6,560	225,618	18,233	27,798			
Tools & Equipment	35.655	23,569	121,018	58,287	100,895			
Vegetation Management	1,581,863	1,649,078	4,473,631	4,804.206	6,156,508			
Penn Power Total	7,057,935	6,766,231	19,87,5,47,4	19,481,212	25,490,367			

The second secon	on the same of the	Pen	elec	***				
T&D Capital - 3Q / YTD September 2013								
Category	Q3 Actuals	Q3 Budget	Q3 YTD Actuals	Q3 YTD Budget	Annual Budget			
Capacity	14,515,658	18,831,493	23,381,049	26,658,036	33,085,381			
Condition	2,606,096	2,193,475	10,161,551	6,462,030	8,044,466			
Facilities	731,434	82,008	1,500,601	245,051	325,953			
Forced	7,222,765	7,737,716	24,336,638	23,348,764	30,504,899			
Meter Related	831,418	726,279	2,753,443	2,153,380	2,867,772			
New Business	2,916,519	3,046,354	8,308,647	8,296,720	11,203,236			
Other	2,231,173	5,167,074	6,667,496	19,310,584	24,833,152			
Reliability	10.380.050	7,145.526	24,491.807	20,208,486	27,632,639			
Street Light	268,514	318,265	887,508	945,008	1,253,565			
Tools & Equipment	163,632	207,651	750,987	590,800	867,093			
Vegetation Management	6,155,546	3,880,376	15,523,635	14,650,394	18,493,035			
Penelec liotal	48,022,804	49,336,217	. 118,763,362	122,869,250	159,111,191			

m Budgets are subject to change

3 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	Met-Ed,								
_	T&D Capital - 30 / YTD September 2013.								
Category	Q3 Actuals	Q3 Budget	Q3 YTD Actuals	Q3 YTD Budget	Annual Budget				
Capacity	1,173,392	1,264,312	14,034,010	13,943,185	14,704,838				
Condition	3.686.858	3,903,754	11,515,092	10,568,572	13,944,041				
Facilities	82,117	20,705	44,607	62,116	82,821				
Forced	6,161,654	6,046,279	13,254,348	17,886,703	22,430,887				
Meter Related	658,173	599,483	2,355,677	1,834,634	2,431,665				
New Business	3,136,643	3,373,711	9,839,975	10,125,224	13,442,789				
Other	467,797	2,754,144	4,009,977	6,404,213	10,296,827				
Reliability	(367,724)	1,057,776	3,109,213	4,108,026	5,129,361				
Street Light	95,049	90,599	247,696	271,025	360,151				
Tools & Equipment	223,573	191,078	873,596	711,282	985,018				
Vegetation Management	3,225,495	3,682,418	11,592,187	11,026,389	14,688,050				
Met Ed Total	18,543,025	22,984,260	7.0!87.6;37.8]	76,941,368	98,496,448				

<u>Section 57.195(e)(9):</u> Dedicated staffing levels for transmission and distribution operation and maintenance at the end of the quarter, in total and by specific category (for example, linemen, technician, and electrician).

## Staffing Levels

Renn Power 2013									
Department	Staff	10	2Q	3Q	4Q				
Line	Leader / Chief	27	29	28					
Line	Lineman	66	63	61					
Substation	Technician	4	4	4					
Substation	Construction & Maintenance (C&M)	21	21	20					
	पिठरें वि	1133	1017	918					

	Penelec 2013				
Department	Staff	1Q	2Q	3Q <sup>n</sup>	4Q
Line	Leader / Chief	140	137	129	
Line	Lineman	178	179	180	
Substation	Technician	6	6	6	
Substation	Construction & Maintenance (C&M)	71	69	. 69	
	Total	395	ණු	£33	

	Met-Ed 2013				
Department	Staff	1Q	2Q	3Q	4Q
Line	Leader / Chief	54	53	53	
Line	Lineman	178	176	176	
Substation	Technician	15	15	15	
Substation	Construction & Maintenance (C&M)	59	59	59	
	তিরো	306	803	803	

<sup>&</sup>lt;sup>n</sup> Through 3Q of 2013, Penelec has experienced a reduction in staffing due to retirements and transfers.

<u>Section 57.195(e)(10):</u> Quarterly and year-to-date information on contractor hours and dollars for transmission and distribution operation and maintenance.

## Contractor Expenditures

This portion of the report is confidential per Docket L-00301061.

<u>Section 57.195(e)(11):</u> Monthly call-out acceptance rate for transmission and distribution maintenance workers presented in terms of both the percentage of accepted calls-out and the amount of time it takes the EDC to obtain the necessary personnel. A brief description of the EDC's call-out procedure should be included when appropriate.

## Call-out Acceptance Rate

This portion of the report is confidential per Docket L-00301061.

## Call-out Response

This portion of the report is confidential per Docket L-00301061.

# **RECEIVED**

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PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU

## **ATTACHMENT A**

Worst Performing Circuits - Reliability Indices

Penn Powe	er .	8 - 2 - 2 S = 8	<u></u>	7.0		7,57 g		عداد ا	1 2 2 2 2		· . · · · · · · · · · · · · · · · · · ·		
Circuit Rank	Substation	Circuit Desc	District	Average	Outages	Lockout	Customer	Customers	SAIDI	SAIDI	SAIFI	CAIDI	MAIFI
Olicult Rails	30031811011	Official Desc	District	Customers	Outages	9	Minutes	Affected	Impact	SAIDI	JAII I	UAIDI	INDSII I
1	Conneaut	W-173	Clark	1,934	35	1	885,058	2,711	5.57	457.6	1.4	326.5	0
2	Hickory	W-245	Clark	1,469	15	1	763,017	1,740	4.80	519.4	1.18	438.5	2
3	Hermitage	W-260	Clark	2,392	58	2	639,614	6,969	4.02	267.4	2.91	91.78	0
4	Stoneboro	W-130	Clark	804	34	0	618,834	1,215	3.89	769.7	1.51	509.3	0.09
5	Sharon	W-135	Clark	1,131	33	1	561,590	1,890	3.53	496.5	1.67	297.1	0
6	Silver Street	W-268	Clark	2,188	21	1	528,392	2,736	3.32	241.5	1.25	193.1	0
7	Mercer	W-167	Clark	850	38	0	518,931	1,302	3.26	610.5	1.53	398.6	0
8	Canai	W-101	Clark	1,498	37	0	513,160	1,916	3.23	342.6	1.28	267.8	0
9	McDowell	W-120	Clark	1,037	53	0	510,077	1,542	3.21	491.9	1.49	330.8	2

Submitted Pursuant to 52 Pa. Code § 57.195(d) and (e)

Penelec	a la				الأحماد					· · · · · · · · · · · · · · · · · · ·	رات المان الم	· · · · · · · · · · · · · · · · · · ·	
Oirceit Rank	Substation	Circuit Desc	District	Averaça Oustomers	Outages	Lockouts	Customer Minutes	Customers Affected	SAIDI impact	SAIDI	SAIFI	CAIDI	MAIFI
1	Union City	00206-43	Erie	3,779	107	1	1,761,517	9,776	3.02	456	2.59	180	13.73
2	Union City	00425-43	Erie	722	17	0	1,337,309	1,725	2.29	1,852	2.39	775	8.76
3	Rolling Meadows	00310-31	Erie	3,028	31	1	1,163,794	8,854	1.99	384	2.92	131	1.59
4	Marienville	00328-51	Oil City	1,143	40	0	995,057	2,396	1.71	871	2.10	415	17.37
5	East Pike	00095-13	Indiana	3,333	23	0	954,531	4,553	1.64	286	1.37	210	6.78
6	DuBois	00124-23	DuBois	2,089	29	0	847,381	9,387	1.45	406	4.49	90	1.00
7	Springboro	00237-52	Meadville	2,834	66	0	783,261	4,134	1.34	276	1.45	189	3.00
8	Madera	00165-22	Philipsburg	944	33	0	725,513	1,868	1.24	769	1.98	388	9.93
9	Madera	00166-22	Philipsburg	2,248	50	2	713,640	7,664	1.22	317	3.41	93	5.40
10	Philipsburg	00162-22	Philipsburg	3,263	87	0	686,069	7,335	1.18	210	2.25	94	13.36
11	Warren South	00220-41	Warren	2,970	59	0	668,753	3,631	1.15	225	1.22	184	3.50
12	Williamsburg	00046-71	Alteona	387	22	0	640,573	1,625	1.10	1,655	4.20	394	2.40
13	Seward	00075-11	Johnstown	905	20	0	628,756	3,443	1.08	695	3.80	183	5.30
14	Lake Como	00788-65	Montrose	742	27	2	604,252	3,069	1.04	814	4.14	197	11.76
15	Union City	00207-43	Erie	853	36	2	585,656	4,072	1.00	687	4.77	144	15.03
16	Belleville	00124-81	Lewistown	544	23	2	571,209	1,678	0.98	1,050	3.08	340	20.00
17	East Pike	00094-13	Indiana	1,531	9	2	548,804	6,259	0.94	358	4.09	88	9.92
18	Erie South	00259-31	Erie	2,498	62	1	538,278	6,076	0.92	215	2.43	89	0.67
19	Hooversville	00019-12	Somerset	1,718	43	0	525,104	3,875	0.90	306	2.26	136	0.70
20	Tunkhannock	00533-65	Montrose	1,231	54	1	515,037	2,972	0.88	418	2.41	173	15.00
21	St. Benedict	00057-72	Ebensburg	919	15	1	511,051	1,978	0.88	556	2.15	258	11.03
22	Madera	00147-22	Philipsburg	1,073	28	3	509,692	5,038	0.87	475	4.70	101	27.18
23	Corry East	00440-43	Erie	593	15	1	506,418	1,252	0.87	854	2.11	404	12.16
24	French Road	00223-31	Erie	2,115	30	2	486,132	7,824	0.83	230	3.70	62	2.38
25	Union City	00208-43	Erie	1,250	51	2	435,430	3,464	0.75	346	2.75	126	20.23
26	Tower 51	00051-11	Johnstown	586	24	0	431,668	1,286	0.74	737	2.19	336	5.65
27	Covington	00729-63	Mansfield	756	31	0	429,679	2,062	0.74	568	2.73	208	2.17
28	Edgewood	00097-13	indiana	1,354	16	0	421,184	3,517	0.72	311	2.60	120	16.08
29	Viscose Hill	00116-81	Lewistown	672	19 _	0	420,466	917	0.72	626	1.38	459	0.00
30	Emlenton	00121-51	Oil City	655	25	2	414,814	3,107	0.71	633	4.74	134	12.54
31	Birmingham	00168-22	Philipsburg	1,047	34	0	408,083	2,043	0.70	390	1.95	200	30.29

Submitted Pursuant to 52 Pa. Code § 57.195(d) and (e)

Penelec"			رة المصاد كالم فقد مده	. Alexandra de la companya de la co	ा जुल्ला सुर र के किस	·							
Circuit Rank	Substation:	Circuit Desc	District	Average Customers	Outages	Lockosts	Ossomer Misstes	Or stomers Affected	SAIDI Impact	SAIDI	SAIFI	CAIDI	WAIFI
32	Mailand	00149-81	Lewistown	1,316	49	0	395,675	2,163	0.68	301	1.64	183	2.00
33	Mansfield	00559-63	Mansfield	546	27	2	390,060	1,792	0.67	714	3.28	218	5.45
34	Blairsville East	00080-13	Indiana	1,061	22	0	380,453	3,042	0.65	359	2.87	125	4.85
35	Tiffany	00440-65	Montrose	1,206	20	1	380,450	2,591	0.65	315	2.15	147	13.60
36	DuBais	00137-23	DuBois	3,041	63	0	372,985	4,196	0.64	123	1.38	89	2.22
37	Main Street	00675-63	Mansfield	651	18	1	361,683	1,272	0.62	556	1.95	284	5.56
38	East Sayre	00518-61	Towanda	823	38	1	354,604	3,627	0.61	431	4.41	98	13.26
39	Falls	00297-65	Montrose	810	23	0	343,280	1,841	0.59	424	2.27	186	1.27
40	Edgewood	00089-13	Indiana	893	26	1	341,565	1,671	0.59	382	1.87	204	10.91
41	Сопрег	00069-11	Johnstown	656	17	0	336,718	1,062	0.58	513	1.62	317	5.99
42	Waverly	00164-66	Towanda	950	18	2	335,297	1,967	0.57	353	2.07	170	4.35
43	Salix	00070-11	Johnstown	1,940	37	0	335,127	2,706	0.57	173	1.39	124	5.73
44	Clearfield	00148-21	Clearfield	1,688	34	1	304,030	3,921	0.52	180	2.32	78	19.00
45	Timblin	00103-23	DuBois	801	40	1	300,516	2,772	0.52	375	3.46	108	32.47
46	Mine 40	00277-11	Johnstown	476	7	0	299,003	819	0.51	628	1.72	365	3.11
47	Tionesta Jct Sw Sta	00498-51	Oil City	1,109	36	0	297,379	3,936	0.51	268	3.55	76	1.75
48	Philipsburg	00164-22	Philipsburg	2,334	50	0	284,001	2,799	0.49	122	1.20	101	1.76
49	Portage	00186-72	Ebensburg	976	9	1	275,286	2,302	0.47	282	2.36	120	0.35
50	Plates	00432-34	Erie	612	24	Ð	258,614	2,073	0.46	439	3.39	130	7.02
51	Westfall	00008-71	Altoona	825	10	1	268,319	918	0.46	325	1.11	292	4.01
52	Warren South	00219-41	Warren	318	18	0	266,277	1,345	0.46	837	4.23	198	6.01
53	Cambridge Springs	80460-52	Meadville	541	11	2	265,259	1,180	0.45	490	2.18	225	0.00
54	Mansfield	00558-63	Mansfield	716	32	0	260,298	869	0.45	364	1.21	300	5.40
55	East Towanda	00525-62	Towanda	676	31	D	260,122	808	0.45	385	1.20	322	1.58
56	Somerset	00013-12	Somerset	2,158	36	2	· <b>257,6</b> 55	3,257	0.44	119	1.51	79	13.96
57	Downing Avenue	00570-31	Erie	759	7	0	255,538	879	0.44	337	1.16	291	1.00
58	Wellsboro	00324-63	Mansfield	289	7	0	249,570	451	0.43	864	1.56	553	0.00
59	Meyersdale North	00004-12	Somerset	591	12	3	243,382	1,620	0.42	412	2.74	150	4.47
60	Hollidaysburg	00202-71	Altoona	916	8	1	241,534	1,639	0.41	264	1.79	147	0.00
61	Lawrenceville	00632-63	Mansfield	642	20	1	237,292	1,316	0.41	370	2.05	180	7.03
62	Saxton	00625-73	Bedford	1,229	12	0	236,496	1,489	0.41	192	1.21	159	10.00
63	Waverly	00162-66	Towanda	734	14	1	234,189	1,644	0.40	319	2.24	142	0.37

Customers	Met-Ed:					, e			19				F	
2 Flying Hills 00776-1 Reading 1.484 22 0 0 852.860 2.336 1.73 842.08 1.57 407.90 3	Circuit Rank	Substation	Circuit Desc	District		Outages	Lockouts			SAIDI Impact	SAIDI	SAIFI	CAIDI	MAIFI
3   Shawnee   00895-3   Stroudsburg   3,737   56   0   910,839   7,279   1,66   24,374   1,95   125,134   4   S. Nazreth   00809-3   Easton   2,975   47   1   838,002   6,726   1,53   281,88   2,26   10,73   5   Fox Hill   00816-3   Stroudsburg   3,804   53   0   663,035   6,179   1,21   174,3   1,62   107,30   6   Shawnee   00860-3   Stroudsburg   3,171   48   3   610,806   4,801   1,11   192,62   1,51   127,22   7   Hill   00735-4   York   1,566   40   1   601,318   2,945   1,09   333,39   1,88   204,11   8   Broad Street   00776-2   Lebanon   1,851   7   1   598,591   3,785   1,09   333,39   1,88   204,11   9   Birdsboro   00756-1   Reading   1,521   51   2   588,250   3,833   1,07   386,75   2,52   153,47   10   Newberry   00577-4   York   1,599   11   1   683,019   1,994   1,66   364,61   1,25   292,39   11   Barto   00706-1   Boyertown   2,095   63   1   657,068   5,437   1,03   271,98   2,61   104,30   12   N. Bangor   00826-3   Easton   3,153   83   0   658,037   6,524   1,02   177,3   2,1   84,40   13   N. Bangor   00826-3   Easton   1,318   43   0   538,67   2,321   0,97   397,41   77,3   204,44   14   Straban   00676-4   Geitysburg   1,073   35   0   494,061   3,457   0,90   460,45   3,22   142,92   15   Snydersville   00627-3   Stroudsburg   1,769   24   1   433,080   2,534   0,50   278,73   1,47   190,08   16   Tolna   00793-4   York   1,737   57   0   404,898   2,533   0,74   233,1   144,159,95   17   Lynrville   00735-1   Hamburg   1,326   5   29   0   404,653   1,213   0,74   415,03   1,24   333,60   18   Newberry   00576-4   York   1,737   57   0   404,898   2,533   0,74   233,1   146,169,95   19   Lickdale   00625-2   Lebanon   1,921   37   1   399,347   2,18   0,73   2,79,88   4,71   1,71   20   Mich   Rose   00664-4   York   1,737   57   0   404,898   2,533   0,74   233,1   146,169   1,59   1,51				Easton										0.06
4 S. Nazareth 00809-3 Easton 2,975 47 1 1,838,602 6,726 11,53 281,88 2,26 124,68 1 5 Fox Hill 00816-3 Stroudsburg 3,804 53 0 663,035 6,179 1,21 174,3 1,62 107,30 6 Shawnee 00869-3 Stroudsburg 3,171 48 3 1610,006 4,801 1,11 192,62 1,51 127,22 1 7 Hill 00735-4 York 1,566 40 1 601,318 2,946 1,09 363,98 1,88 204,11 8 Broad Street 00776-2 Lebanon 1,851 17 1 596,991 3,785 1,09 323,39 2,04 168,15 9 Birdsboro 0076-1 Reading 1,521 51 2 588,250 3,833 1,07 386,75 2,52 153,47 10 Newberry 00576-1 Reading 1,521 51 2 588,250 3,833 1,07 386,75 2,52 153,47 11 Barto 00705-1 Boyertown 2,095 63 1 557,068 5,437 1,03 271,98 2,61 104,30 12 N. Bangor 00826-3 Easton 3,153 83 0 559,037 6,624 1,02 177,3 2,1 84,40 13 N. Bangor 00833 Easton 1,338 43 0 534,857 2,321 0,97 399,74 1,73 230,44 14 Straban 00676-4 Gettysburg 1,073 35 0 494,061 3,457 0,90 480,45 3,22 142,92 15 Snydersville 00621-3 Stroudsburg 1,769 24 1 493,000 2,594 0,90 278,73 1,47 190,09 16 Tolna 00793-4 York 1,511 23 1 470,709 1,875 0,86 311,52 1,42 2,51 1 1 Lebanon 00735-1 Hamburg 1,326 35 2 419,456 3,188 0,76 316,4 2,39 132,19 139 1 Lickdale 00625-2 Lebanon 1,975 29 0 404,653 1,213 0,74 415,03 1,24 23,18 18 Newberry 00576-4 York 1,737 57 0 404,698 2,533 0,74 233 1 1,46 159,95 1 19 Lickdale 00625-2 Lebanon 1,975 29 0 404,653 1,213 0,74 415,03 1,24 333,60 1 19 Lickdale 00625-2 Lebanon 1,971 37 1 399,347 2,818 0,73 207,88 1,47 141,17 2 1 Mir. Rose 00564-4 York 1,085 6 2 391,142 2,242 0,71 360,5 2,07 174,46 1 22 Belfast 00849-3 Easton 1,986 12 0 361,39 2,21 0,56 30,14 2,33 1 1,46 159,95 1 19 Lickdale 00625-2 Lebanon 1,971 37 1 399,347 2,818 0,73 207,88 1,47 141,17 1 2 1 Mir. Rose 00564-4 York 1,085 6 2 391,142 2,242 0,71 360,5 2,07 174,46 1 2 2 Belfast 00849-3 Easton 1,986 12 0 301,14 3,50 0.59 190,49 2,48 7,66 1 2 3 3 1,49 1,40 0,59 1 3 1,40 0,59 1 1,40	2	Flying Hills	00776-1	Reading	1,484		0	952,850		1.73	642.08	1.57	407.90	1.00
5         Fox Hill         00816-3         Stroudsburg         3,804         53         0         663,035         6,179         1,21         11/3         1,62         107.30           6         Shawnee         00860-3         Stroudsburg         3,171         48         3         610,806         4,801         1,11         192,62         1,51         127,22         1           7         Hill         00735-4         York         1,566         40         1         501,318         2,945         1,09         333,38         1,82         204,111           8         Broad Street         00776-2         Lebanon         1,651         17         1         596,891         3,785         1,09         322,39         2,04         168,15           9         Bidrisboro         00756-1         Reading         1,521         51         2,52         588,250         3,833         1,09         322,39         2,04         168,15           10         Newberry         00577-4         York         1,599         11         1         583,019         1,994         1,06         364,61         1,25         292,39           11         Barto         0075-1         Burb         3,00	3	Shawnee	00895-3	Stroudsburg			0	910,839		1.66				7.68
6         Shawnee         00860-3         Stroudsburg         3.71         48         3         610,806         4,801         1.11         192,62         1.51         127,22           7         Hill         00735-4         York         1.566         40         1         601,318         2,946         1.09         333,98         1.88         204,11           8         Birdsboro         00756-1         Reading         1,521         51         2         588,250         3,833         1.07         386,75         2.52         153,47           10         Newberry         00577-4         York         1.599         11         1         583,019         1.994         1.06         364,61         1.22         293,99           11         Barton         00705-1         Boyertown         2,085         63         1         567,068         5,437         1.03         271,98         2.61         104,30           12         N. Bangor         00826-3         Easton         3,133         83         0         559,037         6,624         1.02         177,3         2.1         84,00           13         N. Bangor         00826-3         Easton         1,338         43	4	S. Nazareth	00809-3	Easton	2,975		1	838,602	6,726	1.53	281.88	2.26	124.68	0.95
7 Hill 00735-4 Vork 1.566 40 1 601.318 2.946 1.09 383.98 1.88 204.11 8 Broad Street 00776-2 Lebanon 1.851 17 1 598.591 3.785 1.09 323.39 2.04 158.15 9 Birdsboro 00756-1 Reading 1.521 51 2 588.250 3.833 1.07 386.57 2.52 153.47 10 Newberry 00577-4 York 1.599 11 1 583.019 1.994 1.06 384.61 1.25 292.39 11 Barto 00705-1 Beyertown 2.095 63 1 587.08 5.437 1.03 271.98 2.61 104.30 12 N. Bangor 00825-3 Easton 3.153 83 0 559.037 6.524 1.02 177.3 2.1 84.40 13 N. Bangor 00825-3 Easton 3.153 83 0 559.037 6.524 1.02 177.3 2.1 84.40 13 N. Bangor 00813-3 Easton 1.338 43 0 534.857 2.321 0.97 399.74 1.73 230.44 14 Straban 00676-4 Gettysburg 1.073 35 0 494.061 3.457 0.90 460.455 3.22 142.92 16 Snyderswille 00621-3 Stroudsburg 1.769 24 1 493.080 2.594 0.90 278.73 1.47 190.08 16 Tolna 00793-4 York 1.511 23 1 470.09 1.875 0.06 311.52 1.24 251.04 17 Lynrwille 00735-1 Hamburg 1.326 35 2 419.545 3.168 0.76 316.4 2.39 132.43 18 Newberry 00576-4 York 1.737 57 0 404.998 2.533 0.74 233.1 1.46 159.95 19 Lickdale 00625-2 Lebanon 975 29 0 404.653 1.213 0.74 415.03 1.24 331.60 19 Lickdale 00625-2 Lebanon 1.921 37 1 399.347 2.818 0.73 2.07.88 1.47 141.71 17 17 180.09 12 1 1 373.41 18 18 Newberry 00576-4 York 1.737 57 0 404.998 2.533 0.74 233.1 1.46 159.95 19 Lickdale 00625-2 Lebanon 1.921 37 1 399.347 2.818 0.73 2.07.88 1.47 141.71 17 180.09 12 1 1 373.41 18 0.73 2.07.88 1.47 141.71 18 19 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5	Fox Hill	00816-3	Stroudsburg	3,804	53	0	663,035	6,179	1.21	174.3	1.62	107.30	5.19
8         Broad Street         00776-2         Lebanon         1,851         17         1         599,591         3,785         1,09         323.39         2,04         158,15         10         Birdsboro         00756-1         Reading         1,521         51         2         588,250         3,833         1,07         386,75         2,52         153,47           10         Newberry         00577-4         York         1,599         11         1         583,019         1,199         1,06         384,61         1,22         223.39           11         Bato         00706-1         Boyentown         2,065         63         1         567,086         5,437         1,03         271,98         2,61         104,30           12         N. Bangor         00813-3         Easton         3,153         83         0         559,037         6,624         1,02         177.3         2,1         84,40         1         439,080         2,94         1,097         399,74         1,73         230,44         1         439,080         2,94         1,097         399,74         1,73         230,44         1         439,080         2,94         1,097         399,74         1,73         20,7         142,9	6	Shawnee	00860-3	Stroudsburg	3,171	48	3	610,806	4,801	1.11	192.62	1.51	127.22	10.73
9 Birdsboro 00756-1 Reading 1,521 51 2 588,250 3,833 1.07 386,75 2.52 153,47 10 Newberry 00577-4 York 1,599 11 1 683,019 1,934 1.06 364,61 1.25 292,39 11 Barto 00705-1 Boyertown 2,085 63 1 567,068 5,437 1.03 271,98 2,61 104,30 12 N. Bangor 00825-3 Easton 3,153 83 0 559,037 6,624 1.02 177,3 2.1 84,40 13 N. Bangor 00813-3 Easton 1,338 43 0 534,857 2,321 0,97 399,74 1,73 230,44 14 Straban 00676-4 Gettysburg 1,073 35 0 494,061 3,457 0,90 466,45 3,22 142,92 15 Snydersville 00621-3 Stroudsburg 1,769 24 1 493,080 2,594 0,90 278,73 1,47 190,08 16 Toina 00793-4 York 1,511 23 1 470,709 1,875 0,86 311,52 1,24 251,04 177 Lynnville 00735-1 Hamburg 1,326 35 2 419,545 3,168 0,76 316,4 2,39 132,43 18 Newberry 00576-4 York 1,737 57 0 404,998 2,533 0,74 233.1 1,46 159,85 1 16 Newberry 00576-4 York 1,737 57 0 404,998 2,533 0,74 233.1 1,46 159,85 1 16 Newberry 00576-4 York 1,737 57 0 404,998 2,533 0,74 233.1 1,46 159,85 1 16 Newberry 00576-4 York 1,085 6 2 391,142 2,242 0,71 360,5 2,07 174,46 12 1 Mt. Rose 00564-4 York 1,085 6 2 391,142 2,242 0,71 360,5 2,07 174,46 12 1 Mt. Rose 00564-4 York 1,085 6 2 391,142 2,242 0,71 360,5 2,07 174,46 12 1 Mt. Rose 00564-4 York 1,085 6 2 391,142 2,242 0,71 360,5 2,07 174,46 12 1 Mt. Rose 00564-4 York 1,085 6 2 391,142 2,242 0,71 360,5 2,07 174,46 12 1 Mt. Rose 00564-4 York 1,085 6 2 391,142 2,242 0,71 360,5 2,07 174,46 12 1 Mt. Rose 00564-4 York 1,085 6 2 391,142 2,242 0,71 360,5 2,07 174,46 12 1 Mt. Rose 00564-4 York 1,085 6 2 391,142 2,242 0,71 360,5 2,07 174,46 12 1 Mt. Rose 00564-4 York 1,085 6 2 391,142 2,242 0,71 360,5 2,07 174,46 12 1 Mt. Rose 00564-4 York 1,085 6 2 391,142 2,242 0,71 360,5 2,07 174,46 12 1 Mt. Rose 00564-4 York 1,085 6 2 391,142 2,242 0,71 360,5 2,07 174,46 12 1 Mt. Rose 00564-4 York 1,085 6 2 391,142 2,242 0,71 360,5 2,07 174,46 12 1 Mt. Rose 00564-4 York 1,085 6 2 391,142 2,242 0,71 360,5 2,07 174,46 12 1 Mt. Rose 00572-4 York 1,085 6 2 391,142 2,242 0,71 360,5 2,07 174,46 12 1 Mt. Rose 00572-4 York 1,085 1 Mt. Rose 00572-4 York 1,085 1 Mt. Rose 00572-4 York 1,085 1 M	7	Hill	00735-4	York	1,566	40	1	601,318	2,946	1.09	383.98	1.88	204.11	1.00
10   Newberry   00577-4   York   1,599   11   1   583,019   1,194   1,06   364,61   125   292,39     11	8	Broad Street	00776-2	Lebanon	1,851	17	1		3,785	1.09	323.39	2.04	158.15	0.00
11   Barto   00705-1   Boyertown   2.085   63   1   567.068   5.437   1.03   271.98   2.61   104.30   12   N. Bangor   00826-3   Easton   3.153   83   0   559.037   6.624   1.02   177.3   2.1   84.40   13   13   N. Bangor   00813-3   Easton   1.338   43   0   534.857   2.231   0.97   399.74   1.73   230.44   14   Straban   00676-4   Gettysburg   1.073   35   0   494.061   3.457   0.90   460.45   3.22   142.92   15   Snydersville   00621-3   Stroudsburg   1.769   24   1   493.080   2.594   0.90   276.73   1.47   190.08   16   Tolna   00793-4   York   1.511   23   1   470.709   1.875   0.86   311.52   1.24   251.04   17   Lynnwille   00735-1   Hamburg   1.326   35   2   419.645   3.168   0.76   316.4   2.39   132.43   18   Newberry   00576-4   York   1.737   57   0   404.898   2.533   0.74   233.1   1.46   159.85   19   Lickdale   00625-2   Lebanon   975   29   0   404.653   1.213   0.74   415.03   1.24   333.60   20   North Lebanon   00712-2   Lebanon   1.921   37   1   399.347   2.818   0.73   207.88   1.47   141.71   12   22   Belfast   00849-3   Easton   1.996   12   0   380.211   4.960   0.659   190.49   2.48   76.66   23   Leesport   0.0811-1   Hamburg   1.490   21   1   373.418   3.221   0.68   250.62   2.16   115.93   24   4.000   25   4.000   24   4.000   24   4.000   24   4.000   24   4.000   24   4.	9	Birdsboro	00756-1	Reading	1,521	51	2	588,250	3,833	1.07	386.75	2.52	153.47	2.38
12   N. Bangor   00826-3   Easton   3,153   83   0   559,037   6,624   1,02   177,3   2,1   84,40     13   N. Bangor   00813-3   Easton   1,338   43   0   534,857   2,321   0,97   399,74   1,73   230,44     14   Straban   00676-4   Gettysburg   1,073   35   0   494,061   3,457   0,90   460,45   3,22   142,92     15   Snydersville   00521-3   Stroudsburg   1,769   24   1   493,080   2,594   0,90   278,73   1,47   190,08     16   Toina   00793-4   York   1,511   23   1   470,709   1,875   0,86   311,52   1,24   251,04     17   Lynrwille   00735-1   Hamburg   1,326   35   2   419,454   3,158   0,76   316,4   2,39   132,43     18   Newberry   00576-4   York   1,737   57   0   404,898   2,533   0.74   233,1   1,46   159,85     19   Lickdale   00625-2   Lebanon   1,971   37   1   399,347   2,818   0,73   207,88   1,47   141,71     21   Mt. Rose   00564-4   York   1,085   6   2   391,142   2,242   0,71   360,5   2,07   174,46     22   Befrast   00849-3   Easton   1,996   12   0   380,211   4,960   0,59   190,49   24,8   76,66     23   Leesport   00811-1   Hamburg   1,490   21   1   373,418   3,221   0,58   250,62   2,16   115,93     24   Annwille   00743-2   Lebanon   1,129   22   0   361,439   2,221   0,56   320,14   1,97   162,74     25   Taxxille   00572-4   York   1,036   35   1   346,528   2,306   0,53   336,42   2,23   151,14     26   Dillsburg   00748-4   Dillsburg   1,890   35   3   343,008   4,947   0,564   195,14   2,73   171,36     27   Windsor   00795-1   Reading   1,422   51   0   347,504   2,388   0,53   244,38   1,68   145,52     29   Moselem   00779-1   Reading   1,422   51   0   347,504   2,388   0,53   244,38   1,68   145,52     30   Birdsboro   00757-1   Reading   1,924   30   2   321,116   3,139   0,58   166,9   163   102,30     31   Myerstown   00752-2   Lebanon   1,664   25   0   399,423   4,412   0,56   185,95   5,25   70,13     33   Hill   00737-4   York   1,664   25   0   309,423   4,412   0,56   185,95   5,25   70,13     34   Frystown   00764-4   Gettysburg   1,674   43   2   304,514   4,88	10	Newberry	00577-4	York	1,599	11	1	583,019	1,994	1.06	364.61	1.25	292.39	1.00
13   N. Bangor   00813-3   Easton   1,338   43   0   534,857   2,321   0,97   399.74   1,73   230.44     14	11	Barto	00705-1	Boyertown	2.085	63	1	567,068	5,437	1.03	271.98	2.61	104.30	3.00
13   N. Bangor   00813-3   Easton   1,338   43   0   534,857   2,321   0,97   399.74   1,73   230.44     14	12	N. Bangor	00826-3	Easton	3,153	83	0	559,037	6,624	1.02	177.3	2.1	84.40	0.86
14	13		00813-3	Easton	1,338	43	0	534,857		0.97		1.73	230.44	0.00
15	14		00676-4	Gettysburg	1,073		0	494,061	3,457	0.90	460.45	3.22		1.99
16	15	Snydersville	00621-3		1,769	24	1	493,080	2,594	0.90	278.73	1.47	190.08	0.00
17	16		00793-4	York	1.511	23	1	470,709		0.86	311.52	1.24	251.04	5.00
18         Newberry         00576-4         York         1,737         57         0         404,898         2,533         0,74         233.1         1.46         159.85         1           19         Lickdale         00625-2         Lebanon         975         29         0         404,653         1,213         0,74         415.03         1,24         333.60           20         North Lebanon         00712-2         Lebanon         1,921         37         1         399,347         2,818         0,73         207.88         1,47         141.71           21         Mt. Rose         00564-4         York         1,085         6         2         391,142         2,242         0,71         360.5         2,07         174,46         2           22         Belfast         00849-3         Easton         1,996         12         0         380,211         4,960         0.69         190.49         2,48         76.66         2         391,142         2,922         0.71         360.5         2.06         22.16         115.93         22         0         361,439         2,221         0.66         320.14         1,97         162,74         23         2.5         1.5         1.74 </td <td></td> <td>Lynnyille</td> <td>00735-1</td> <td>Hamburo</td> <td></td> <td></td> <td>2</td> <td></td> <td></td> <td>0.76</td> <td></td> <td></td> <td></td> <td>13.03</td>		Lynnyille	00735-1	Hamburo			2			0.76				13.03
20         North Lebanon         00712-2         Lebanon         1,921         37         1         399,347         2,818         0,73         207.88         1,47         141.71           21         Mt. Rose         00564-4         York         1,085         6         2         391,142         2,242         0.71         360.5         2.07         174.46           22         Belfast         00849-3         Easton         1,996         12         0         380,211         4,960         0.69         190.49         2.48         76.66           23         Leesport         00811-1         Hamburg         1,490         21         1         373,418         3,221         0.68         250.62         2.16         115.93           24         Annville         00743-2         Lebanon         1,129         22         0         361,439         2,221         0.66         320.14         1.97         162.74           25         Taxville         00572-4         York         3,128         13         1         356,760         6,179         0.65         114.05         1.98         57.74           26         Dillsburg         00748-4         Drillsburg         1,809         35 <td>18</td> <td>Newberry</td> <td>00576-4</td> <td></td> <td>1.737</td> <td>57</td> <td>0</td> <td>404.898</td> <td>2,533</td> <td>0.74</td> <td>233.1</td> <td>1.46</td> <td>159.85</td> <td>11.34</td>	18	Newberry	00576-4		1.737	57	0	404.898	2,533	0.74	233.1	1.46	159.85	11.34
20         North Lebanon         00712-2         Lebanon         1,921         37         1         399,347         2,818         0,73         207.88         1,47         141.71           21         Mt. Rose         00564-4         York         1,085         6         2         391,142         2,242         0.71         360.5         2.07         174.46           22         Belfast         00849-3         Easton         1,996         12         0         380,211         4,960         0.69         190.49         2.48         76.66           23         Leesport         00811-1         Hamburg         1,490         21         1         373,418         3,221         0.68         250.62         2.16         115.93           24         Annville         00743-2         Lebanon         1,129         22         0         361,439         2,221         0.66         320.14         1.97         162.74           25         Taxville         00572-4         York         3,128         13         1         356,760         6,179         0.65         114.05         1.98         57.74           26         Dillsburg         00748-4         Drillsburg         1,809         35 <td>19</td> <td>Lickdale</td> <td>00625-2</td> <td>Lebanon</td> <td>975</td> <td>29</td> <td>0</td> <td>404.653</td> <td>1.213</td> <td>0.74</td> <td>415.03</td> <td>1.24</td> <td>333.60</td> <td>4.01</td>	19	Lickdale	00625-2	Lebanon	975	29	0	404.653	1.213	0.74	415.03	1.24	333.60	4.01
21         Mt. Rose         00564-4         York         1,085         6         2         391,142         2,242         0.71         360.5         2.07         174.46           22         Belfast         00849-3         Easton         1,996         12         0         380,211         4,960         0.69         190.49         2.48         76,66           23         Leesport         00611-1         Hamburg         1,490         21         1         373,418         3,221         0.68         250.62         2.16         115.93           24         Annwille         00743-2         Lebanon         1,129         22         0         361,439         2,221         0.66         320.14         1.97         162.74           25         Taxville         00572-4         York         3,128         13         1         356,760         6,179         0.66         320.14         1.97         162.74           26         Dillsburg         00748-4         Dillsburg         1,809         35         3         353,008         4,947         0.64         195.14         2.73         71.36           27         Windsor         00795-4         York         1,036         35	20	North Lebanon		Lebanon	1,921		1	399,347		0.73				0.00
23         Leesport         00811-1         Hamburg         1,490         21         1         373,418         3,221         0.68         250,62         2.16         115,93           24         Annville         00743-2         Lebanon         1,129         22         0         361,439         2,221         0.66         320,14         1,97         162,74           25         Taxville         00572-4         York         3,128         13         1         356,760         6,179         0.65         114,05         1,98         57,74           26         Dillsburg         00748-4         Dillsburg         1,809         35         3         353,008         4,947         0.64         195,14         2,73         71,36           27         Windsor         00795-4         York         1,036         35         1         348,528         2,306         0.63         336,42         2,23         151,14           28         Bern Church         00789-1         Reading         1,422         51         0         347,504         2,388         0.63         244,38         1,68         145,52           29         Moselem         00779-1         Reading         1,897         20 <td></td> <td>Mt. Rose</td> <td>00564-4</td> <td>York</td> <td>1,085</td> <td>6</td> <td>2</td> <td>391,142</td> <td>2.242</td> <td>0.71</td> <td>360.5</td> <td>2.07</td> <td>174.46</td> <td>4.02</td>		Mt. Rose	00564-4	York	1,085	6	2	391,142	2.242	0.71	360.5	2.07	174.46	4.02
23         Leesport         00811-1         Hamburg         1,490         21         1         373,418         3,221         0.68         250,62         2.16         115,93           24         Annville         00743-2         Lebanon         1,129         22         0         361,439         2,221         0.66         320,14         1,97         162,74           25         Taxville         00572-4         York         3,128         13         1         356,760         6,179         0.65         114,05         1,98         57,74           26         Dillsburg         00748-4         Dillsburg         1,809         35         3         353,008         4,947         0.64         195,14         2,73         71,36           27         Windsor         00795-4         York         1,036         35         1         348,528         2,306         0.63         336,42         2,23         151,14           28         Bern Church         00789-1         Reading         1,422         51         0         347,504         2,388         0.63         244,38         1,68         145,52           29         Moselem         00779-1         Reading         1,897         20 <td></td> <td></td> <td></td> <td>Easton</td> <td></td> <td></td> <td></td> <td>380,211</td> <td></td> <td>0.69</td> <td>190,49</td> <td></td> <td></td> <td>0.00</td>				Easton				380,211		0.69	190,49			0.00
24         Annville         00743-2         Lebanon         1,129         22         0         361,439         2,221         0,66         320,14         1,97         162,74           25         Taxville         00572-4         York         3,128         13         1         356,760         6,179         0,65         114,05         1,98         57,74           26         Dillsburg         00748-4         Dillsburg         1,809         35         3         353,008         4,947         0,64         195,14         2,73         71,36           27         Windsor         00795-4         York         1,036         35         1         348,528         2,306         0,63         336,42         2,23         151,14           28         Bern Church         00789-1         Reading         1,422         51         0         347,504         2,388         0,63         244,38         1,68         145,52           29         Moselem         00779-1         Reading         1,897         20         1         343,583         2,105         0,62         181,12         1,11         163,22           30         Birdsboro         00757-1         Reading         1,924         30 <td></td> <td>Leesport</td> <td>00811-1</td> <td>Hamburo</td> <td></td> <td></td> <td>1</td> <td></td> <td></td> <td></td> <td>250.62</td> <td></td> <td></td> <td>1.00</td>		Leesport	00811-1	Hamburo			1				250.62			1.00
25         Taxville         00572-4         York         3,128         13         1         356,760         6,179         0.65         114.05         1.98         57,74           26         Dillsburg         00748-4         Dillsburg         1,809         35         3         353,008         4,947         0.64         195.14         2.73         71.36           27         Windsor         00795-4         York         1,036         35         1         348,528         2,306         0.63         336.42         2.23         151.14           28         Bern Church         00789-1         Reading         1,422         51         0         347,504         2,388         0.63         244.38         1,68         145,52           29         Moselem         00779-1         Reading         1,897         20         1         343,583         2,105         0.62         181.12         1.11         163,22           30         Birdsboro         00757-1         Reading         1,924         30         2         321,116         3,139         0.58         166.9         1.63         102.30           31         Myerstown         00752-2         Lebanon         1,466         18 <td></td> <td></td> <td>00743-2</td> <td></td> <td></td> <td></td> <td>0</td> <td></td> <td>2,221</td> <td>0.66</td> <td></td> <td></td> <td></td> <td>5.02</td>			00743-2				0		2,221	0.66				5.02
26         Dillsburg         00748-4         Dillsburg         1,809         35         3         353,008         4,947         0,64         195,14         2,73         71,36           27         Windsor         00795-4         York         1,036         35         1         348,528         2,306         0,63         336,42         2,23         151,14           28         Bern Church         00789-1         Reading         1,422         51         0         347,504         2,388         0,63         244,38         1,68         145,52           29         Moselem         00779-1         Reading         1,897         20         1         343,583         2,105         0,62         181,12         1,11         163,22           30         Birdsboro         00757-1         Reading         1,924         30         2         321,116         3,139         0,58         166,9         1,63         102,30           31         Myerstown         00752-2         Lebanon         1,466         18         2         319,248         3,263         0,58         217,77         2,23         97,84           32         W. Boyertown         00715-1         Boyertown         1,682	25	Taxville	00572-4	York	3.128	13	1	356.760	6.179	0.65	114.05			7.58
27         Windsor         00795-4         York         1,036         35         1         348,528         2,306         0.63         336,42         2.23         151,14           28         Bern Church         00789-1         Reading         1,422         51         0         347,504         2,388         0.63         244.38         1.68         145,52           29         Moselem         00779-1         Reading         1,897         20         1         343,583         2,105         0.62         181.12         1.11         163,22           30         Birdsboro         00757-1         Reading         1,924         30         2         321,116         3,139         0.58         166.9         1.63         102.30           31         Myerstown         00752-2         Lebanon         1,466         18         2         319,248         3,263         0.58         217.77         2.23         97.84           32         W. Boyertown         00715-1         Boyertown         1,682         22         1         311,038         2,218         0.57         184.92         1.32         140,23           33         Hill         90737-4         York         1,664         25 <td></td> <td>Dillsburg</td> <td></td> <td>Dillsburg</td> <td></td> <td></td> <td>3</td> <td>353.008</td> <td></td> <td>0.64</td> <td></td> <td></td> <td></td> <td>1.66</td>		Dillsburg		Dillsburg			3	353.008		0.64				1.66
28         Bern Church         00789-1         Reading         1,422         51         0         347,504         2,388         0.63         244.38         1.68         145.52           29         Moselem         00779-1         Reading         1,897         20         1         343,583         2,105         0.62         181.12         1.11         163.22           30         Birdsboro         00757-1         Reading         1,924         30         2         321,116         3,139         0.58         166.9         1.63         102.30           31         Myerstown         00752-2         Lebanon         1,466         18         2         319,248         3,263         0.58         217.77         2.23         97.84           32         W. Boyertown         90715-1         Boyertown         1,682         22         1         311,038         2,218         0.57         184.92         1.32         140.23           33         Hill         90737-4         York         1,664         25         0         309,423         4,412         0.56         185.95         2.65         70.13           34         Frystown         90702-2         Lebanon         802         13 </td <td></td> <td></td> <td>00795-4</td> <td></td> <td>1.036</td> <td></td> <td>1</td> <td></td> <td></td> <td>0.63</td> <td></td> <td></td> <td></td> <td>0.14</td>			00795-4		1.036		1			0.63				0.14
29         Moselem         00779-1         Reading         1,897         20         1         343,583         2,105         0.62         181.12         1.11         163,22           30         Birdsboro         00757-1         Reading         1,924         30         2         321,116         3,139         0.58         166.9         1.63         102.30           31         Myerstown         00752-2         Lebanon         1,466         18         2         319,248         3,263         0.58         217.77         2.23         97.84           32         W. Boyertown         00715-1         Boyertown         1,682         22         1         311,038         2,218         0.57         184.92         1.32         140,23           33         Hill         90737-4         York         1,664         25         0         309,423         4,412         0.56         185.95         2.65         70.13           34         Frystown         90702-2         Lebanon         802         13         3         307,926         2,591         0.56         383.95         3.23         118.84           35         Lincoln Park         90750-1         Reading         895         21 <td></td> <td>Bern Church</td> <td></td> <td>Reading</td> <td></td> <td></td> <td>0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>3.25</td>		Bern Church		Reading			0							3.25
30         Birdsboro         00757-1         Reading         1,924         30         2         321,116         3,139         0.58         166.9         1.63         102.30           31         Myerstown         00752-2         Lebanon         1,466         18         2         319,248         3,263         0.58         217.77         2.23         97.84           32         W. Boyertown         00715-1         Boyertown         1,682         22         1         311,038         2,218         0.57         184.92         1.32         140,23           33         Hill         90737-4         York         1,664         25         0         309,423         4,412         0.56         185.95         2.65         70.13           34         Frystown         90702-2         Lebanon         802         13         3         307,926         2,591         0.56         383.95         3.23         118.84           35         Lincoln Park         90750-1         Reading         895         21         1         307,571         1,765         0.56         343.65         1.97         174.26           36         Orttanna         90764-4         Gettysburg         1,674         4	29	Moselem	00779-1			20	1	343.583		0.62	181,12	1.11		1.00
31         Myerstown         00752-2         Lebanon         1,466         18         2         319,248         3,263         0.58         217.77         2.23         97.84         4           32         W. Boyertown         00715-1         Boyertown         1,682         22         1         311,036         2,218         0.57         184.92         1.32         140,23	30	Birdsboro	00757-1	Reading	1.924	30	2	321.116	3.139	0.58	166.9		102.30	1,74
32         W. Boyertown         00715-1         Boyertown         1,682         22         1         311,038         2,218         0.57         184.92         1.32         140,23           33         Hill         90737-4         York         1,664         25         0         309,423         4,412         0.56         185.95         2.65         70.13         3           34         Frystown         90702-2         Lebanon         802         13         3         307,926         2,591         0.56         383.95         3.23         118.84           35         Lincoln Park         90750-1         Reading         895         21         1         307,571         1,765         0.56         343.65         1.97         174.26           36         Ortanna         90764-4         Gettysburg         1,674         43         2         304,514         4,868         9.55         181.91         2.91         62.55														4.94
33         Hill         90737-4         York         1,664         25         0         309,423         4,412         0.56         185,95         2.65         70,13         3           34         Frystown         90702-2         Lebanon         802         13         3         307,926         2,591         0.56         383,95         3.23         118.84           35         Lincoln Park         90750-1         Reading         895         21         1         307,571         1,765         0.56         343,65         1.97         174,26         0.55         343,65         1.97         174,26         0.55         181,91         2.91         62.55         0.55         181,91         2.91         62.55         0.55         181,91         2.91         62.55         0.55         181,91         2.91         62.55         0.55         181,91         2.91         62.55         0.55         181,91         2.91         62.55         0.55         181,91         2.91         62.55         0.55         181,91         2.91         62.55         0.55         181,91         2.91         62.55         0.55         181,91         2.91         62.55         0.55         181,91         2.91         62.55								<del></del>						0.94
34         Frystown         00702-2         Lebanon         802         13         3         307,926         2,591         0.56         383.95         3.23         118.84           35         Lincoln Park         00750-1         Reading         895         21         1         307,571         1,765         0.56         343.65         1.97         174.26         36           36         Ontanna         00764-4         Gettysburg         1,674         43         2         304,514         4,868         0.55         181.91         2.91         62.55							Ö	<del></del>						2.64
35 Lincoln Park 00750-1 Reading 895 21 1 307,571 1,765 0.56 343,65 1.97 174,26 36 Ontanna 00764-4 Gettysburg 1,674 43 2 304,514 4,868 0.55 181,91 2.91 62.55														1.72
36 Ontanna 00764-4 Gettysburg 1,674 43 2 304,514 4,868 0.55 181.91 2.91 62.55														0.00
							· ·							1.00
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PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU

## **ATTACHMENT B**

Worst Performing Circuits - Remedial Actions

In addition to specific remedial efforts taken and planned for the worst performing 5% of circuits identified in 52 Pa Code § 57.195(e)(3), the Companies have identified circuits that have been on this list for one year or more, or in four out of six quarters, in accordance with the Stratified Management and Operations Audit Implementation Plan dated February 14, 2007, Recommendation XI-4 at Docket Number D-05MGT003.

Penn Pov	verioni					
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Date Remedial Work Completed	Appeared in 4 of 6 Quarters
			Performance was driven by two outages both caused by non-preventable tree.			
1	Conneaut	W-173	The problem tree was removed and associated repairs were made at time of restoration	Complete	Jul-13	
			Performance was driven by two outages both caused by non-preventable trees.	·		-
			Circuit reliability coordinator field review of circuit to identify visible equipment failures	Complete	Sep-12	
2	Hickory	W-245	Forestry to trim circuit	Complete	Jun-13	
	,		Circuit reliability coordinator field review of circuit to identify visible equipment failures	Complete	Jun-13	
		_	The problem tree was removed and associated repairs were made at time of restoration	Complete	Jul-13	
			Performance was driven by two outages caused by line failures due to wind associa	ited with thunderstorm.		
			Substation returned to normal	Complete	Jun-12	40.0040
			Equipment that was damaged by lightning was replaced at time of restoration	Complete	Aug-12	4Q 2012 1Q 2013
3	Hermitage	W-260	Equipment that was damaged by wind was replaced at time of restoration	Complete	Jun-13	2Q 2013
			Circuit reliability operdinator field review of circuit to identify visible equipment failures	Complete	Mar-13	3Q 2013
	<u> </u>		CEMI improvement project on the main feed of the circuit	Complete	Jul-13	<u>.</u>

Penn Pov	ver	2:				
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Date Remedial Work Completed	Appeared in 4 of 6 Quarters
			Performance was driven by three outages, two caused by preventable trees and one	caused by non-prevental	ole trees.	30, 2012
	Stoneboro	W-130	The problem tree was removed and associated repairs were made at time of restoration	Complete	Jul-12	4Q 2012 1Q 2013
7	2/01/60010	¥¥-150	Field review of circuit to identify visible equipment failures	Complete	Sep-12	20 2013
			The problem tree was removed and associated repairs were made at time of restoration	Complete	Jul-13	30 2013
			Performance was driven by one outages caused by non-preventable trees.			
5	Sharon	W-135	The problem tree was removed and associated repairs were made at time of restoration	Complete	Apr-13	
			Performance driven by two outages one caused by steel roof being blown into line	during a storm.		
6	Silver Street	W-268	Animal removed when line was restored	Complete	May-12	
			Steel roof was removed and associated repairs were made at time of restoration	Complete	Apr-13	
			Performance was driven by one outage caused by non-preventable trees.			
7	Mercer	W-167	The problem tree was removed and associated repairs were made at time of restoration	Complete	Jun-13	
			Performance was driven by two outages both caused by non-preventable trees.			·
	Canal	W-101	The problem tree was removed and associated repairs were made at time of restoration	Complete	Ju⊦13	
ľ	Callel	14-101	Circuit reliability coordinator field review of circuit to identify visible equipment failures	Complete	Mar-13	
			CEMI improvement project on the main feed of the circuit	Complete	Aug-13	

PenniPov	wēr:			The same of the sa		
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Date Remedial Work Completed	Appeared in 4 of 6 Quarters
			Performance was driven by one outage caused by non-preventable trees.			•
			Circuit reliability coordinator field review of circuit to identify visible equipment failures	Complete	Jun-13	
9	McDowell	₩-120	CEMI improvement project on the main feed of the circuit	Complete	Jul-13	
			The problem tree was removed and associated repairs were made at time of restoration	Complete	Jul-13	i
			Forestry to trim circuit	To be completed 2013		
			Performance was driven by four outages, one caused by line failure, two caused by preventable tree with all occurring during weather conditions prior to CRC field rev		e caused by a non-	
	1		Equipment that was broken by lightning was replaced at time of restoration	Complete	Jul-12	
			The equipment failure was repaired at the time of restoration	Complete	Jul-12	30 2012
			The equipment failure was repaired at the time of restoration	Complete	Jul-12	4Q 2012
·	Evans City	D611	The problem tree was removed and associated repairs were made at time of restoration	Complete	Jul-12	1Q 2013 2Q 2013
			Field review of circuit to identify visible equipment failures	Complete	Oct-12	
I			Circuit reliability coordinator field review of circuit to identify visible equipment failures	Complete	Apr-13	
			Forestry to trim circuit	Complete	Jun-13	

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Date Remedial Work Completed	Appeared in 4 of 6 Quarters
		,,,,	Performance was driven by non-preventable trees during a minor storm and damage	e from a tornado.		
			Repair line failure	Complete	May-12	
			Repair damage caused by lightning	Complete	Nay-12	3Q 2012
١,	Union City	00206-43	Repair damage caused by a tree during a storm	Complete	Jul-12	4Q 2012 1Q 2013
'	onion city	00200-43	Add additional protection per circuit coordination	Complete	Dec-12	2Q 2013
			Full cycle tree clearing	Complete	Dec-12	3Q 2013
			Repair damage caused by a ternado	Complete	Way-13	
			Repair tree damage from minor storm	Complete	Jul-13	
2	Union City	00425-43	Performance was driven by damage from a tornado.			
	Onion City	00425-45	Repair tornado damage	Complete	₩ <b>ay</b> -13	
			Performance was driven by line failure during minor storm and equipment failure.			4Q 2012
3	Rolling	00310-31	Add additional protection per circuit coordination	Complete	<b>⊍</b> sy-12	1Q 2013
	Meadows	00310-31	Repair line failure	Complete	Dec-12	2Q 2013 3Q 2013
			Repair equipment failure	Complete	Jan-13	30 2013
			Performance was driven by non-preventable trees during a minor storm.			
	Marienville	00328-51	Repair damage caused by a tree	Complete	มี <b>ส</b> у₋13	
	indirevac	000200	Repair damage caused by a tree	Complete	Jun-13	
			Repair damage caused by a tree	Complete	Jul-13	
			Performance was driven by equipment failure and trees non-preventable during min	or storm.		3Q 2012
5	East Pike	00095-13	Repair damage caused by a tree during a storm	Complete	Jul-12	4Q 2012 1Q 2013
	Lastrike	00035-15	Repair equipment failure	Complete	Sep-12	20 2013
			Repair equipment faiture	Complete	<b>Шау-13</b>	3Q 2013

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Date Remediat Work Completed	Appeared in 4 of 6 Quarters		
<u> </u>			Performance was driven by lightning, non-preventable trees and equipment failure.	Troik Completed	Completed	Gan tel 3		
			Repair damage caused by lightning	Complete	Jul-12	3Q 2012		
			Repair damage caused by a tree	Complete	Nov-12	40 2012		
6	DuBois	00124-23	Repair equipment faiture	Complete	Dec-12	10 2013 20 2013		
			Repair equipment faiture	Complete	Jan-13	30 2013		
ĺ	<b>i</b> !		Targeted main fine reliability equipment replacement	To be completed 2013				
			Performance was driven by non-preventable trees during a minor storm and equipme	ent failure.				
1 .		00237-52	Repair equipment faiture	Complete	Feb-13			
'	Springboro	00237-52	Repair damage caused by a tree	Complete	Jun-13			
			Add additional protection per circuit coordination	Complete	Jun-13			
					Performance was driven by non-preventable trees and equipment failure during a sto	orm.		
			Repair damage caused by a tree during a storm	Complete	Apr-12	20 2012		
			Repair damage caused by a tree during a storm	Complete	May-12	30 2012		
8	<b>Масета</b>	00165-22	Add additional protection per circuit coordination	Complete	Feb-13	40 2012 10 2013		
			Repair equipment failure	Complete	Apr-13	20 2013		
			Repair damage caused by a tree	Complete	May-13	30 2013		
			Circuit inspection	Complete	Aug-13			
			Performance was driven by line failure during a storm, non-preventable trees and ve	hicle contact.				
			Repair line faiture	Complete	May-12	20 2012 30 2012		
9	Madera	00156-22	Repair damage from vehicle	Complete	Aug-12	40 2012		
-		1	Repair tree damage	Complete	Sep-12	10 2013 20 2013		
			Repair tree damage	Complete	Jan-13	3Q 2013		
			Repair tree damage	Complete	May-13			

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Date Remedial Work Completed	Appeared in 4 of 6 Quarters
10	Philipsburg	00162-22	Performance was driven by trees non-preventable during storm and equipment failure.			Qualters
			· · · · · · · · · · · · · · · · · · ·		T	2Q 2012 3Q 2012 4Q 2012 1Q 2013 2Q 2013 3Q 2013
			Repair damage caused by lightning	Complete	<b>⊔ау-12</b>	
			Repair equipment failure	Complete	Sep-12	
			Full cycle tree clearing	Complete	Dec-12	
			Repair tree damage during storm	Complete	Uay-13	
			Repair equipment failure	Complete	Jul-13	
	Warren South	00220-41	Performance was driven by non-preventable tree damage during a minor storm and a car pole accident.			20 2012
			Repair damage caused by a vehicle	Complete	May-12	3Q 2012 4Q 2012 1Q 2013 2Q 2013 3Q 2013
11			Repair damage caused by a tree	Complete	Jul-12	
			Repair damage caused by a vehicle	Complete	Mar-13	
			Repair damage caused by a tree	Complete	May-13	
12	Williamsburg	00046-71	Performance was driven by non-preventable trees during a storm.			
			Repair damage caused by a tree	Complete	Jun-13	
	Seward	00075-11	Performance was driven by trees non-preventable and line failure during minor storm.			
			Repair damage caused by a tree during a storm	Complete	Jun-12	4Q 2012 1Q 2013 2Q 2013 3Q 2013
13			Add additional protection per circuit coordination	Complete	Mar-13	
			Repair line faiture	Complete	May-13	
			Repair damage caused by a tree during a storm	Complete	Jun-13	
	Lake Como	00788-65	Performance was driven by trees non-preventable and line failure during minor storm.			
14			Repair tree damage during storm	Complete	Jan-13	
'-			Repair tree damage	Complete	Jul-13	
			Repair line failure	Complete	Jul-13	

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Date Remedial Work Completed	Appeared in 4 of 6 Quarters
15	Union City	00207-43	Performance was driven by damage during a tornedo and a car pole accident.			
			Repair damage caused by a vehicle	Complete	Mar-13	
			Repair damage caused by a tornado	Complete	May-13	
16	Belleville	00124-81	Performance was driven by equipment failure during a storm and line failure.			
			Repair line faiture	Complete	Jul-12	
			Repair equipment faiture	Complete	Jan-13	
			Add additional protection per circuit coordination	Complete	May-13	
_		00094-13	Performance was driven by non-preventable trees during a minor storm and equipm	s driven by non-preventable trees during a minor storm and equipment failure.		
			Repair damage caused by a tree during a storm	Complete	Jul-12	
17	East Pike		Repair equipment failure	Complete	Jan-13	
			Repair line faiture	Сотрієте	May-13	
			Circuit inspection	Complete	Jun-13	
	Erie South	00259-31	Performance was driven by equipment failure, line failure, non-preventable trees and a car pole accident.			
18			Repair equipment damage	Complete	Jun-12	2Q 2012 3Q 2012 4Q 2012 1Q 2013 2Q 2013 3Q 2013
			Repair fine failure	Complete	Sep-12	
			Repair damage caused by a tree during a storm	Complete	Jan-13	
			Add additional protection per circuit coordination	Complete	Jan-13	
			Repair equipment failure	Complete	Mar-13	
			Repair damage caused by a vehicle	Complete	Apr-13	
			Repair line failure	Complete	Jul-13	
	Hooversville	00019-12	Performance was driven by trees non-preventable during minor storm and equipment failure.			30 2012
19			Repair tree damage from minor storm	Complete	Jul-12	40 2012 - 10 2013 20 2013 30 2013
			Repair tine faiture	Complete	Dec-12	
			Add additional protection per circuit coordination	Complete	Oct-13	

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Date Remedial Work Completed	Appeared in 4 of 6 Quarters
20	Tunkhannock	00533-65	Performance was driven by trees non-preventable and equipment failure.			
			Repair damage caused by a tree	Complete	Nov-12	2Q 2012 3Q 2012 4Q 2012 1Q 2013 2Q 2013 3Q 2013
			Repair tree damage	Complete	Aug-12	
			Repair equipment damage	Complete	Apr-13	
			Repair tree damage	Complete	May-13	
			Full cycle tree clearing	To be completed 2013		
			Performance was driven by trees non-preventable and equipment failure during a st	ост.		20 2012
		00057-72	Repair line failure	Complete	Apr-12	3Q 2012 4Q 2012 1Q 2013 2Q 2013 3Q 2013
21	St. Benedict		Repair damage caused by a tree during a storm	Complete	May-12	
			Repair equipment faiture	Complete	Jan-13	
			Repair damage caused by a tree during a storm	Complete	Jun-13	
		00147-22	Ferformance was driven by non-preventable trees and equipment failure during a storm.			
	Madera		Repair equipment faiture	Complete	Oct-12	
22			Repair damage caused by a tree during a storm	Complete	Jan-13	
			Repair tree damage during storm	Complete	May-13	
			Add additional protection per circuit coordination	To be completed 2013		
	Corry East	00440-43	Performance was driven by non-preventable trees during a storm.			
			Repair fine faiture	Complete	Jun-12	3Q 2012 4Q 2012 1Q 2013 2Q 2013 3Q 2013
23			Repair damage caused by a tree	Complete	Aug-12	
23			Repair damage caused by a tree	Complete	May-13	
			Circuit inspection	Complete	Jun-13	
			Full cycle tree clearing	To be completed 2013		
	French Road	00223-31	Performance was driven by trees non-preventable during storm and customer contact with primary.			
24			Repair damage caused by a tree during a storm	Complete	Jan-13	
			Repair line faiture	Complete	Jul-13	

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Date Remedial Work Completed	Appeared in 4 of 6 Quarters	
<u> </u>			Performance was driven by damage from a tornado and trees non-preventable.	YYORK Completed	Competed	Quarters	
			· · · · · · · · · · · · · · · · · · ·	0			
25	Union City	00208-43	Repair damage caused by a tree during a storm	Complete	Apr-13		
			Repair damage caused by a ternado	Complete	<b>Ша</b> у-13		
			Add additional protection per circuit coordination	To be completed 2013			
			Performance was driven by trees non-preventable and equipment failure during a sto	orm.			
	26 Tower 51		Repair damage caused by a vehicle	Complete	Jan-13		
26		00051-11	Add additional protection per circuit coordination	Complete	Feb-13		
			Repair equipment failure	Complete	Mar-13		
			Repair tree damage during storm	Complete	Jul-13		
27	Cauda atau	00729-63	Performance was driven by line failure during a storm.				
21	27 Covington		Repair line damage	Complete	Sep-13		
		00097-13	Performance was driven by equipment and line failure.				
28	Edgewood		Repair equipment damage	Complete	Jul-13		
20	Coge#ood		Repair line damage	Complete	Jul-13		
			2013 Circuit Inspection	Complete	Jun-13		
			Performance was driven by non-preventable trees during a storm.	<del></del>			
29	Viscose Hill	00116-81	Repair damage caused by a tree curing a storm	Complete	Nay-12		
23	VISCUSE III	00110-01	Add additional protection per circuit coordination	Complete	Jun-13		
			Repair tree damage	Complete	Jul-13		
	Performance was driven by non-preventable trees during a storm.						
30	Emlenton	00121-51	Repair damage caused by a tree during a storm	Complete	Apr-13		
30	Chestion	VV121-31	Repair damage caused by a tree during a storm	Complete	Jun-13		
			Circuit inspection	To be completed 2013			

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial	Date Remedial Work	Appeared in 4 of 6	
!			Performance was driven by trees non-preventable, equipment and line failure during	Work Completed	Completed	Quarters	
i			Repair damage caused by a tree during a storm	Complete	442		
31	Birmingham	am 00158-22	Repair equipment failure	Complete	Apr-13		
			Repair equipment failure	Complete			
_	\	Repair equipment failure Complete Sep-13  Performance was driven by equipment failure.					
32	Mailland	00149-81	Repair equipment failure	Complete	Jan-13		
		_	Performance was driven by lightning damage during a storm.	Complete	Jan-13	<u></u> .	
33	Mansfield 00559-63		Repair damage caused by lightning	Complete	0 10		
				Complete	Sep-13		
	,		Performance was driven by non-preventable trees during a storm.				
34	Blairsville East	East 00080-13	Repair damage caused by a tree during a storm	Complete	May-13		
			Repair damage caused by a tree during a storm	Complete	Jun-13		
			Add additional protection per circuit coordination	Complete	Apr-13		
			Performance was driven by trees non-preventable during and line failure during a storm.				
35	Tiftany	00440-65	Repair fine faiture	Complete	May-13		
		•••	Repair damage caused by a tree during a storm	Comptete	Sep-13		
			Circuit inspection	Complete	Sep-13		
			Performance was driven by trees non-preventable, equipment failure and car pole ac	ccident.	<u></u>		
			Repair equipment damage	Complete	Apr-12	·	
36	DuBois	00137-23	Repair damage caused by a tree	Complete	Mar-13		
	}		Repair equipment damage	Complete	Jun-13		
			Repair damage caused by a vehicle	Complete	Sep-13		
	Performance was driven by customer equipment failure and an unknown cause.						
37	Main Street	<b>00675-6</b> 3	Repair equipment failure	Complete	Jun-12		
			Repair equipment failure	Complete	Sep-12		

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Work Completed	Completed	Quarters
			Performance was driven by trees non-preventable and equipment failure.	·		<u> </u>
38	East Sayre	00518-61	Repair damage caused by a tree	Complete	Apr-13	
30	Cast Sayte	00510-01	Repair equipment failure	Complete	Jul-13	
			Add additional protection per circuit coordination	To be completed 2013		
			Performance was driven by non-preventable trees during a storm.			
39	Falls	00297-65	Repair damage caused by a tree	Complete	Apr-13	
			Repair damage caused by a tree	Complete	Sep-13	
			Performance was driven by non-preventable trees during a storm.			
		00089-13	Repair damage caused by a tree	Complete	May-12	2Q 2012 3Q 2012 4Q 2012 1Q 2013 3Q 2013
			Repair equipment damage during storm	Complete	May-12	
40	Edgewood		Add additional protection per circuit coordination	Complete	Jun-12	
			Full cycle tree clearing	Complete	Mar-13	
			Repair damage from vehicle	Complete	Apr-13	
			Repair tree damage	Complete	Aug-13	
41	Cooper	00069-11	Performance was driven by trees non-preventable.			
	Cooper	00005-11	Repair damage caused by a tree	Complete	Jul-13	
42	Waverly	00164-66	Performance was driven by non-preventable trees during a storm.			
	ridveriy	30104-00	Repair damage caused by a tree during a storm	Complete	Sep-13	
			Performance was driven by non-preventable trees and a line failure during a minor :	storm.	•	2Q 2012
			Repair damage caused by a tree during a storm	Complete	May-12	3Q 2012 4Q 2012
43	Safex	00070-11	Repair fine failure	Complete	Dec-12	1Q 2013
			Full cycle tree clearing	Complete	May-13	2Q 2013
			Repair tree damage during storm	Complete	Jun-13	3Q 2013

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial	Date Remedial Work	Appeared in 4 of 6	
<del></del>	1		Performance was driven by non-preventable trees during a storm.	Work Completed	Completed	Quarters	
44	Clearfield	00148-21					
1	Creative	00140-21	Repair damage caused by a tree  Circuit inspection	Complete Complete	Jul-13		
	<u> </u>			<u> </u>	Aug-13		
	Performance was driven by non-preventable trees during a minor storm, a car pole accident and equipment failure.						
			Repair damage caused by a tree	Complete	May-12	20 2012	
			Repair damage caused by a vehicle	Complete	Sep-12	30 2012 40 2012	
45	Timblin	00103-23	Repair damage caused by a tree during a storm	Complete	Jul-12	10 2013	
			Repair equipment failure	Complete	Jun-13	20 2013 30 2013	
	İ		Repair damage caused by a tree	Complete	Jul-13		
			Circuit inspection	Complete	Sep-13		
46	Performance was driven by a car pole accident.  8 Uine 49 00277-11						
	Mine 40	00277-11	Repair damage caused by a vehicle	Complete	Aug-13		
			Performance was driven by equipment failure and non-preventable trees during a storm.				
			Repair tree damage during storm	Complete	Jun-12	4Q 2012 1Q 2013 2Q 2013 3Q 2013	
47	Tionesta Jct Sw Sta	00498-51	Repair equipment damage	Complete	Dec-12		
	00		Repair equipment damage	Complete	Jan-13		
		ı	Repair equipment damage	Complete	Jun-13		
			Performance was driven by equipment failure and a car pole accident.			20 2012	
			Repair equipment faiture	Complete	0d-12	30 2012	
48	Philipsburg	00164-22	Repair equipment failure	Complete	Dec-12	4Q 2012 1Q 2013	
			Add additional protection per circuit coordination	Complete	Mar-13	20 2013	
			Repair damage caused by a vehicle	Complete	Jun-13	30 2013	
	Performance was driven by equipment failure and a car pole accident.						
49	Portage	00186-72	Repair damage caused by a vehicle	Complete	Feb-13		
			Repair equipment faiture	Complete	Aug-13		

i				Status of Remedial	Date Remedial Work	Appeared in 4 of 6	
Rank	Substation	Circuit	Remedial Action Planned or Taken	Work Completed	Completed	Quarters	
			Performance was driven by equipment failure and non-preventable trees during a st				
50	Platea	00432-34	Repair damage caused by a tree during a storm	Complete	Ju⊦13		
			Repair equipment failure	Complete	Aug-13		
51	Westfall	Performence was driven by trees non-preventable during a minor storm.					
	AACOURI	00000-71	Repair damage caused by a tree during a storm	Complete	Jun-13		
			Performance was driven by trees non-preventable and equipment failure during a st	orm.			
52	52 Warren South	00219-41	Repair equipment failure	Complete	Dec-12		
			Repair damage caused by a tree	Complete	Jun-13		
			Circuit Inspection	Complete	May-13		
		00460-52	Performence was driven by trees non-preventable during a minor storm.				
53	Cambridge Springs		Repair tree damage during storm	Complete	Jul-12		
			Repair tree damage during storm	Complete	May-13		
			Performance was driven by line failure and overload during minor storm.				
54	Mansfield	00558-63	Repair line failure	Complete	Aug-13		
			Reçair overload damage	Complete	Sep-13		
	East Towanda	00525-62	Performence was driven by line failure.				
	East Towanda	VU323-02	Repair line failure	Complete	Jul-13		
			Performance was driven by non-preventable trees during storm, equipment failure a	nd selt contemination.			
	ļ		Repair equipment failure	Complete	Jul-12		
56	Somerset	00013-12	Clean up sail contamination	Complete	Feb-13		
			Repair tree damage during storm	Complete	Jun-13		
			Add additional protection per circuit coordination	Complete	Jul-13		
			Repair tree camage during storm	Complete	Aug-13		

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial	Date Remedial Work	Appeared in 4 of 6	
<u> </u>	Bi		Performance was driven by a car pole accident.	Work Completed	Completed	Quarters	
57	Downing Avenue	00570-31	<u> </u>	Complete			
	1		Repair damage caused by a vehicle	Complete	Мау-13	·	
		!	Performance was driven by non-preventable trees during a storm.	T			
58	58 Wellsboro	00324-63	Repair tree damage	Complete	Dec-12		
			Repair tree damage	Complete	Jun-13		
			Performance was driven by non-preventable trees, salt contamination and object co	ntact.			
59	Meyersdale	00004-12	Remove metal roofing from line	Complete	Dec-12		
	North	00004-12	Clean up salt contamination	Complete	Feb-13		
			Add additional protection per circuit coordination	Complete	Apr-13		
		l	Performance was driven by non-preventable trees and lightning during a minor storm.				40 2012
60	Holidaysburg	00202-71	Repair damage caused by a tree during a storm	Complete	Dec-12	10 2013	
	110maby3burg	// 00202-71	Full cycle tree clearing	Complete	Feb-13	2Q 2013 3Q 2013	
			Repaired damage caused by lightning during storm	Complete	Jul-13	30 2013	
			Performance was driven by equipment failure during a storm and trees non-preventa	ble.			
ļ			Repair equipment failure	Complete	Apr-13		
61	Lawrenceville	00632-63	Customer correct equipment issue	Complete	May-13		
"	Latricicevite	0002-03	Repair tree damage	Complete	May-13		
			Repair equipment failure	Complete	May-13		
			Add additional protection per circuit coordination	To be completed 2013			

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Date Remedial Work Completed	Appeared in 4 of 6 Quarters
			Performance was driven by line failure and trees non-preventable during a storm.	1101k Competed	Completed	3Q 2012 4Q 2012
62	Saxton	00525-73	Repair line faiture	Complete	Sep-12	10 2013
			Repair tree damage	Complete	Jul-13	2Q 2013 3Q 2013
			Performance was driven by trees non-preventable during a storm.			
63	Waverly	CO152-65	Repair tree damage during storm	Complete	Aug-13	
			Repair tree damage during storm	Complete	Sep-13	
			Performance was driven by equipment failure and vehicle damage.	- <u></u> .		
			Repair equipment faiture	Complete	Jan-12	
	Erie East	00234-31	Repair damage caused by a vehicle	Complete	Sep-12	
			Add additional protection per circuit coordination	Complete	Oct-12	
	. <u> </u>		Full cycle tree clearing	To be completed 2013		
			Performance was driven by non-preventable trees during a storm.	, ,		
	Punxsutawney	00829-23	Repair damage caused by a tree during a storm	Complete	May-12	
	,		Circuit inspection	Complete	Jul-13	
			Full cycle tree clearing	To be completed 2013		
			Performance was driven by non-preventable trees during a storm.			
İ	Tionesta	003 <del>44</del> -51	Repair damage caused by a tree during a storm	Complete	Jun-12	
	HOUGSAN	803 <del>44-</del> 31	Repair damage caused by a tree during a storm	Complete	Jun-12	
			Circuit inspection	To be completed 2013		

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Date Remedial Work Completed	Appeared in 4 of 6 Quarters	
			Performence was driven by non-preventable trees during a storm.				
	Vanu	00333 54	Repair line faiture	Complete	Aug-12		
	Knox	00323-51	Repair equipment faiture	Complete	Sep-12		
			Circuit inspection	To be completed 2013		ı	
			Performance was driven by non-preventable tree damage during a minor storm and	line failure.			
	Two Mile	00127-42	Repair damage caused by a tree during a storm	Complete	Jui-12		
	1		Repair ine faiture	Complete	Jan-13		
			Add additional protection per circuit coordination	To be completed 2013			
	Performance was driven by tightning and equipment failure during a storm.						
			Repair damage caused by a tree during a storm	Complete	Мау-12	3Q 2012 4Q 2012	
	Shawville	00151-21	Repair equipment damage	Complete	Aug-12		
	1		Circuit inspection	Complete	Aug-13	1Q 2013	
			Add additional protection per circuit coordination	To be completed 2013		2Q 2013	
			Performance was driven by lightning damage during a storm.				
	Pittsburgh	00524-31	Repair damage caused by Eghtning	Complete	Jul-12	4Q 2012	
	Avenue		Circuit inspection	Complete	Jul-13	1Q 2013 2Q 2013	
	İ		Performance was driven by non-preventable trees during a storm.			3Q 2012	
	Cambridge	00461-52	Repair damage caused by a tree during a storm	Complete	Jul-12	40 2012	
	Springs		Circuit inspection	Complete	Jul-13	1Q 2013 2Q 2013	
			Performance was driven by non-preventable trees and line failure.	<u>'</u>	<u> </u>	3Q 2012	
	8rookv <b>i</b> te	00125-23	Repair damage caused by a tree	Complete	Aug-12	4Q 2012	
	Of OURVIE	00125-25	Repair line faiture	Complete	Jan-13	1Q 2013 2Q 2013	
			Circuit inspection	Complete	Aug-13		
	Performence was driven by equipment failure.						
	Donate 3	00400 00	Repair equipment faiture	Complete	Jan-12		
	Brookville	00123-23	Add additional protection per circuit coordination	Complete	Apr-13		
			Circuit inspection	Complete	Aug-13		

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial	Date Remedial Work	Appeared in 4 of 6	
				Work Completed	Completed	Quarters	
			Performance was driven by non-preventable trees and equipment failure during a storm.				
	Dixonville East	00120-13	Repair equipment faiture	Complete	Mar-12		
	DECONTRACT COST		Repair damage caused by a tree	Complete	Aug-12		
			Circuit inspection	Complete	Jun-13		
			Performance was driven by non-preventable trees and line failure during a storm.			10.2012	
			Repair damage caused by a tree during a storm	Complete	Jun-12	20 2012	
	Tiffany	00435-65	Repair line failure	Complete	Jun-12	30 2012	
			Add additional protection per circuit coordination	Complete	Mar-13	40 2012	
	[ [		Full cycle tree clearing	Complete	May-13	1 <b>Q 2</b> 013	
			Performance was driven by an unknown cause.				
		00699-63	Line patrolled due to unknown caused outage	Complete	Apr-12	3Q 2012 4Q 2012	
	in the state of		Add additional protection per circuit coordination	Complete	Aug-13		
			Circuit inspection	Complete	Sep-13	10 2013	
			Performance was driven by non-preventable trees and equipment failure during mino	or storm.			
			Repair equipment damage	Complete	Apr-12	20 2012	
	Madera	00167-22	Repair equipment damage	Complete	May-12	3Q 2012 4Q 2012	
			Repair damage caused by a tree during a storm	Complete	May-12	10 2013	
			Add additional protection per circuit coordination	Complete	Apr-13	V- 4-/V	
			Performance was driven by non-preventable trees and equipment failure during a mi	nor storm.		1Q 2012	
			Repair damage caused by a tree and equipment failure during storm	Complete	Apr-12	2Q 2012	
	Clymer	00110-13	Repair damage caused by a tree during a storm	Complete	Jul-12	3Q 2012 4Q 2012	
			Full cycle tree clearing	Complete	Feb-13		
			Add additional protection per circuit coordination	Complete	May-13	1Q 2013	

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters	
			Performance was driven by non-preventable trees (64%) and line failure (35%).				
1	Ottsville	00661-3	Install rectoser	Complete	Aug-12		
			Comprehensive tree trimming	To be completed 2013			
			Performance was driven by a single storm on 7/23/12 which contributed 31% of circuit minutes, and trees which contributed 69% of circuit minutes.				
			Comprehensive tree trimming	Complete	May-12	]	
			Perform accelerated backbone and three phase assessment	Complete	Jul-12		
ł l			Spot forestry patrol	Complete	Jul-12		
	Flying Hills		Engineering review for the installation of an additional main line recloser	Complete	Jul-12	202012	
		Hills 00776-1	Spot tree removals	Complete	Sep-12	3Q2012 - 4Q2012 - 1Q2013 - 2Q2013 - 3Q2013	
2			Engineering review for the creation of an additional circuit tie	Complete	Dec-12		
			Engineering circuit inspection	Complete	Dec-12		
			Spot forestry patrol	Complete	Dec-12		
			Spot tree trimming and removals (Freemansville Road)	Complete	May-13		
			Install additional set of main line disconnects	Complete	Aug-13		
			Replace underground cable in Flying Hills URD	Complete	Aug-13		
	•		Spot tree removal Hickory Rd	Complete	Sep-13		
			Perform accelerated backbone and three phase circuit assessment	Complete	Sep-13		
			Performance was driven by insulator failure 7/28/12 which contributed 37% of circult 50% of circuit minutes.	uit minutes, end trees whic	h contributed	202012	
			Repair split pole top found on circuit assessment	Complete	Oct-12	3Q2012	
3	Shawnee	00895-3	Correct fuse coordination	Complete	Oct-12	402012	
	Shawhee	00093-3	Comprehensive tree trimming	Complete	Oct-12	102013	
			Replace porcelain cutouts on recloser backbone with polymer cutouts	Complete	May-13	202013	
			Install additional Supervisory Control And Data Acquisition (SCADA) switch	Complete	Jul-13	302013	
			Perform accelerated backbone and three phase circuit assessment	Complete	Oct-13		
			Performance was driven by a storm on 6/24/13 which contributed 38% of minutes, in 17% of circuit minutes and a vahicle accident which contributed 12% of circuit minutes.		contributed		
4	S. Nazareth	00809-3	Install SCADA controlled switch	Complete	May-12	]	
	3. 114251001		Replace porcelain cutouts on circuit backbone with polymer cutouts	Complete	Dec-12	]	
			Perform accelerated backbone and three phase circuit assessment	To be completed 2013		]	
		l	Install fault Indicators	To be completed 2013			

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters	
	Fox Hill		Performance driven by non-preventable trees which contributed 43% of circuit minutes and a vehicle accident which contributed 43% of minutes.				
5		00816-3	Comprehensive tree trimming	Complete	Apr-12	]	
			Perform accelerated backbone and three phase circuit assessment	Complete	0ct-13		
			Replace porcelain cutouts on backbone with polymer	Complete	Oct-13	1	
			Performance was driven by an insulator failure on 1/2/13 which contributed 49% of 4/19/13 which contributed 30% of minutes.	minutes and trees during	a storm on		
			Install Supervisory Control and Data Acquisition (SCADA) controlled switch	Complete	Sep-12	]	
		wnee 00860-3	Install Supervisory Control and Data Acquisition (SCADA) controlled switch	Complete	Sep-12	202012 302012 102013 202013 302013	
6	Shawnee		Replace three sets of fault indicators	Complete	Jun-12		
"			Repair conditioned items from circuit assessment	Complete	Dec-12		
			Comprehensive tree trimming	Complete	Apr-13		
			Replace sectionalizer with Supervisory Control And Data Acquisition (SCADA MOAB)	Complete	Aug-13		
			Perform accelerated backbone and three phase circuit assessment	Complete	Oct-13		
i			Performance driven by tree cause outages (74%).				
			Install an additional recloser to protect the circuit three phase	Complete	May-12		
			Comprehensive tree trimming	Complete	Jul-12		
7	HΠ	00735-4	Perform accelerated backbone and three phase assessment	Complete	Aug-12		
			Comprehensive circuit assessment	Complete	Aug-13	]	
			Replace poles identified during wood pole inspection	Complete	Aug-13		
			Replace/repair high priority items identified during circuit patrol	Complete	Sep-13		
			Replace/repair high priority items identified during circuit patrol	To be completed in 2013			
		Performance was primarily driven by equipment failure and vehicle accidents (68%).					
8	Broad Street	00776-2	Comprehensive tree trimming	Complete	Dec-12	] <b>[</b>	
			Replace underground cable - seven spans	Complete	Feb-13	] <b> </b>	
	i		Repair broken switch 77666	Complete	Aug-13		

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters	
			Performance was driven by a storm on 9/18/12 which contributed 39% of circuit	minutes.			
			Spot main line tree trimming and removals	Complete	Apr-12	]	
			Proactive every other month main line forestry inspection	Complete	May-12	]	
			Spot main line tree trimming and removals	Complete	Jun-12	]	
		1	Replace bypass disconnects main line recloser	Complete	Jun-12	]	
			Perform accelerated backbone and three phase assessment	Complete	Jul-12	]	
				Engineering review for the installation of an additional main line recloser	Complete	Jul-12	]
			Proactive every other month main line forestry inspection	Complete	Sep-12	2Q2012 3Q2012 4Q2012	
			Spot main line tree trimming and removals	Complete	Oct-12		
			Proactive every other month main line forestry inspection	Complete	Nov-12		
			Replace main line crossarm from assessment	Complete	Dec-12		
9	Birdsboro	00756-1	Spot tree trimming and removals	Complete	Dec-12	102013	
			Proactive every other month main line forestry inspection	Complete	Feb-13	202013	
			Spot tree trimming and removals	Complete	Mar-13	3Q2013	
			install main line tap fuse and fault indicators	Complete	May-13		
			Comprehensive circuit patrol	Complete	Jun-13		
			Proactive every-other-month main line forestry inspection	Complete	Jun-13		
			Main line crossarm brace repair from comprehensive circuit patrol	Complete	Jun-13	]	
			Main tine pole top repair from comprehensive circuit patrol	Complete	Jun-13		
			Spot tree trimming and removals	Complete	Aug-13		
ļ			Proactive every-other-month main line forestry inspection	Complete	Sep-13		
j			Upgrade main line disconnects to gang operated air break switch	Cancelled			
			Upgrade main line recloser and customer re-distribution project	To be completed in 2013		]	

14

<sup>&</sup>lt;sup>14</sup> Revised engineering study reflects improvement will be obtained from upgrade to main line recloser and circuit re-distribution (see additional action) versus GOAB.

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters
10	Newberry	00577-4	Performance driven by tree-caused outages which contributed to 98% of the minute	<b>9</b> \$.		
10	пемьену	00577-4	Forestry to perform an off cycle patrol and trimremove any required trees	Complete	Jun-12	
		Performance driven by tree-caused outages (53%), an outage caused by a line tap problem (16%) and a vehicle accident (15%).				
1 1		j	Engineering main line protection coordination analysis	Complete	Apr-12	)
			Comprehensive tree trimming	Complete	May-12	302012
			Transmission substation equipment repair	Complete	Jul-12	402012
11	Barto	00705-1	Main line forestry inspection	Complete	Aug-12	102013
			Spot forestry inspection	Complete	Sep-12	202013
1			Spot forestry inspection	Complete	Nov-12	302013
			Spot forestry inspection .	Complete	Apr-13	
			Perform accelerated backbone assessment	Complete	Sep-13	
			Replace main line crossarm from assessment	Complete	Sep-13	
			Performance was driven by trees which contributed 44% of circuit minutes and 229 cause on 11/28/12.	6 of minutes due to an out	age of unknown	302012
45	N Poness	00000 3	Forestry to perform mid-cycle inspection	Complete	Nev-12	402012
12	n. banger	N. Bangor 00826-3	Replace porcelain cutouts on circuit backbone with polymer cutouts	Complete	Apr-13	102013
			Replace sectionalizer with SCADA MOAB	Complete	Jun-13	202013
			Perform accelerated backbone and three phase circuit assessment	To be completed in 2013		302013
			Performance was driven by trees non-preventable which contributed 64% of circuit	minutes.		
13	N. Bangor	00813-3	Forestry to perform on mid-cycle tree trimming	Complete	Dec-12	
			Install new electronic recloser	Complete	Sep-13	1
			Performance was driven by non-preventable trees which contributed to 79% of circ	uit minutes.		
			Perform partial accelerated circuit reliability assessment of main line	Complete	Jun-13	
1			Perform partial accelerated circuit reliability assessment of three phase	Complete	Jun-13	
14	Straban		Perform switch maintenance on two gang operated air break switches	Complete	Jul-13	ĺ
			Perform partial accelerated circuit reliability assessment of three phase	Complete	Jul-13	İ
			Replace one crossarm identified on partial main line assessment	Complete	Jul-13	]
			Comprehensive tree trimming	Complete	Jul-13	

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters	
		Performance driven by a vehicle accident on 11/22/12 which contributed 64% of minutes and a broken crossarm on 5/16/13					
			which contributed 16% of minutes.	·		202012	
			Replace switch	Complete	Jun-12	302012	
15	Snydersville	00621-3	Replace recloser	Complete	Aug-12	402012	
	Shydersime	00021-3	Perform accelerated backbone and three phase assessment	Complete	Aug-12	102013	
			Replace crossarm found during circuit assessment	Complete	Oct-12	202013	
			Perform accelerated backbone and three phase assessment	Complete	Oct-13	302013	
		<u> </u>	Replace substation recloser and add remote control	To be completed 2013	_		
	16 Tolna		Circuit performance was driven by object (roof) becoming dislodged and contacting	g the line during a minor s	torm (81%).		
40		00793-4	Perform accelerated backbone and three phase circuit assessment	Complete	Jun-12	1	
16		10ina   u0/93-4	Install additional fault indicators on the circuit	Complete	Oct-12	]	
			Replace/Repair high priority items identified during circuit patrol	Complete	Aug-13	1	
	-	Performance driven by two outages caused by an insulator problem (70%) and non-preventable tree outages (14%).					
17	Lynnville	nville 00735-1	Main line insulator repair	Complete	Feb-13	1	
			Comprehensive tree trimming	To be completed in 2013			
40	Manubasa.	00575-4	Performance driven by non-preventable tree outages (38%) and vehicle caused or	tages (37%).			
18	Newberry	80575-4	No additional actions are planned for 2013.		•		
	<del></del>		Performance was primarily driven by tree caused damage and equipment failures (	70%).			
19	Lickdale	00625-2	Perform accelerated backbone circuit assessment	Complete	Aug-12	1	
			Pole Replacement	Complete	May-12	1	
			Ferformance was primarily driven by vehicle accidents (76%)				
			Repiace Broken Switch 71216	Complete	Apr-13	402012	
20	North Lebanon	00712-2	Replace deteriorated crossarm	Complete	Jul-13	1Q2013 2Q2013	
			Replace recloser and control with triple single unit	Complete	Aug-13	302013	
			Perform accelerated backbone circuit assessment	To be completed 2013		]	
			Comprehensive tree trimming	To be completed 2013	–		

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters
21	Mt. Rose	00564-4	Performance driven by non-preventable trees which contributed 83% of circuit min	utes.		
[ 21 ]	MI, RUSE	00364-4	Perform accelerated backbone assessment	Complete	Sep-12	
			Performance was driven by a tree caused outage on 6/30/13 which contributed 31% on 5/10/13 which contributed 27% of minutes.			
22	22 Belfast	00849-3	Replace crossarm identified during circuit assessment	Complete	Apr-13	
			Comprehensive tree trimming	Complete	Jun-13	
			Install additional main line fusing	To be completed in 2013		
		ļ	Performance driven by an outage caused by an arrester problem (53%) and a vehi	cle accident (24%).		
		ĺ	Replace main line crossarm from assessment	Complete	Apr-12	
	Leesport		Replace main line crossarm from assessment	Complete	May-12	
			Spot forestry inspection	Complete	Nov-12	202012
			Engineering review for the installation of an additional main line recloser	Complete	Dec-12	3Q2012
23		00811-1	Replace additional main line crossarm from assessment	Complete	Apr-13	4Q2012 1Q2013
23		00011-1	Replace main line crossarm brace from assessment	Complete	Apr-13	
			Replace tap insulator from comprehensive circuit patrol	Complete	Apr-13	202013
			Complete comprehensive circuit patrol	Complete	Мау-13	302013
			Complete work request design for new main line recloser	Complete	Aug-13	
			install fuse/bypass on main line	To be completed in 2013		]
			Install main line arresters	To be completed in 2013		
			Performance was driven by trees and equipment failure (71%).			
24	Annville	00743-2	Complete comprehensive circuit patrol	Complete	Jan-13	
] [			Replace broken switch	Complete	Jui-13	
			Performance was driven by lightning cause outages (89% of minutes).			
			Perform accelerated circuit reliability assessment of backbone	Complete	Jun-12	
			Perform accelerated circuit reliability assessment of three phase	Complete	Jun-12	
			Perform SAIFI analysis initiative study	Complete	Apr-12	2Q2012
25	Taxville	00572-4	Install fault indicators on the circuit three phase backbone.	Complete	Sep-12	402012 102013
			Replace/repair high priority items identified during circuit patrol	Complete	Sep-12	302013
			Install additional fuse on the circuit	Complete	Oct-12	
			Comprehensive tree trimming	Complete	<u>Маг-13</u>	]
			Perform accelerated backbone circuit assessment	To be completed 2013		]

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters	
			Performance driven by trees at 67% of circuit minutes and a lightning damaged insulator at 23% of circuit minutes.				
26	26 Dillsburg	00748-4	Replace/repair high priority items identified during accelerated circuit reliability assessment patrol	Complete	Jun-12		
			Perform radio controlled tie switch inspection	Complete	Aug-13		
			Install three one phase electronic resettable sectionalizers to improve circuit backbone reliability	Complete	Sep-13		
	<b></b>		Circuit performance was driven by lightning cause outages (56%) and equipment fa	ilure cause outages (22%	6).		
			Perform accelerated circuit reliability assessment of backbone	Complete	May-12		
27	Windsor	00795-4	Perform accelerated circuit reliability assessment of three phase	Complete	May-12	]	
"	***************************************	00/95-4	Forestry to perform on cycle comprehensive circuit tree trimming	Complete	Dec-12	1	
			Comprehensive circuit patrol	Complete	Арг-13	]	
			Replace/repair high priority items identified during circuit patrol	Complete	Jul-13		
			Performance driven by an outage caused by a vehicle accident (31%), underground caused by an overhead primary conductor problem (12%) and tree-caused outages		an outage		
			Spot forestry inspection	Complete	Aug-12	3Q2012 4Q2012	
28	Bern Church	00789-1	Fuse upgrades for tap coordination improvement	Complete	Aug-12	102013	
20	j Serii Gilaren	00,00-1	Relocate main line tap from off road location to along public roadway	Complete	Sep-12	202013	
			Replace additional underground cable in Plum Creek Estates underground residential distribution	Complete	Oct-12	3Q2013	
			Perform accelerated backbone assessment	Complete	Sep-13		
			Performance driven by an outage by a bird contact (61%) and an outage due to a su	ibstation equipment prob	lem (29%).		
			Perform accelerated backbone assessment	Complete	Sep-12	1	
			Install additional main line tap fuse	Complete	Apr-13	1	
29	Moselem	selem 00779-1	Replace underground cable in Richmond Commons underground residential distribution	Complete	Jul-13		
			Replace additional underground cable in Richmond Commons underground residential distribution	Complete	Aug-13		
			Install additional tap fuses	Complete	Sep-13	]	

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters	
				Performance driven by an outage caused by a subtransmission crossarm problem	(45%) and tree-caused or	rtages (44%).	
			Spot main line tree trimming and removals	Complete	Apr-12		
			Proactive every other month main line forestry inspection	Complete	May-12		
			Replace main line crossarm from assessment	Complete	May-12		
			Spot main line tree trimming and removals	Complete	Jun-12		
			Replace main line crossarm from assessment	Complete	Jun-12		
			Upgrade main line disconnects to gang operated air break switch	Complete	Jun-12		
	Birdsboro	00757-1	Perform accelerated backbone assessment	Complete	Jun-12	2Q2012 3Q2012 4Q2012 1Q2013 2Q2013 3Q2013	
			Perform accelerated three phase assessment	Complete	Jun-12		
			Engineering review for the installation of an additional main line recloser	Complete	Jul-12		
			Complete forestry assessment of three phase for SAIFI analysis	Complete	Sep-12		
30			Proactive every other month main line forestry inspection	Complete	Sep-12		
			Spot main line tree trimming and removals	Complete	0ct-12		
İ			Proactive every other month main line forestry inspection	Complete	Nov-12		
· '			Spot tree trimming and removals	Complete	Dec-12	1	
			Proactive every other month main line forestry inspection	Complete	Feb-13		
			Spot tree trimming and removals	Complete	Mar-13	1	
			Replace additional main line crossarms from assessment	Complete	Apr-13	1	
			Proactive every other month main line forestry inspection	Complete	Jun-13	]	
			Complete comprehensive circuit patrol	Complete	Jun-13	]	
			Spot tree trimming and removals	Complete	Aug-13		
			Proactive every other month main line forestry inspection	Complete	Sep-13		
			Spot tree trimming and removals	To be completed in 2013			
31	Myerstown	stown 00752-2	Performance was driven by lightning and an animal contact outages (78%).				
	, 0. 0.0	10.02-2	Comprehensive tree trimming	Complete	Jul-13		

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters	
			Performance driven by an outage caused by a crossarm problem (67%) and outages caused by underground equipment problems (23%).				
			Comprehensive tree trimming	Complete	Sep-12	)	
32	W. Boyertown	00715-1	Comprehensive circuit patrol	Complete	Oct-12	)	
			Replace main line regulator	Complete	Apr-13		
			Replace submersible transformer with pad mounted transformer	Complete	Jun-13		
			Replace additional submersible transformer with pad mounted transformer	Complete	Jul-13		
33	HiD	00737-4	Performance driven by human error non-company caused outages (43%) and vehic	le accident caused outag	es (45%).		
	LIB	00/3/-4	Perform accelerated backbone and three phase circuit assessment	Complete	Jun-12		
				Performance was driven by line failures and tree caused outages (67%).			
		00702-2	Review step bank fusing	Complete	Apr-12		
			Perform accelerated three phase circuit assessment	Complete	Jun-12	202012	
34	Frystown		Replace crossarm and broken insulators	Complete	Jun-12	3Q2012 4Q2012 3Q2013	
) J4	riystuvii		Perform accelerated backbone circuit assessment	Complete	Jul-13		
			Comprehensive circuit patrol	Complete	Ju⊦13		
			Replace deteriorated crossarm	Complete	Jul-13		
			Install fault indicators at one location	Complete	Aug-13		
35	Linceln Park	00750-1	Performance was driven by outages caused by underground cable problems in the development (52%) and an outage caused by a vehicle accident (31%).	Grove Ave underground r	esidential		
J 35	Luicum Paik	00130-1	Replace underground cable in Grove Ave underground residential development	Complete	Aug-13		
			Create back feed to Grove Ave underground residential development	Complete	Aug-13		
36	Orrtanna	00764-4	Performance was driven by a vehicle accident at 18% of circuit minutes, a spacer of conductor issues at 17% of circuit minutes.	able issue at 17% and tw	o overhead		
J 36	Ontaina	00704-4	Install twenty seven faulted circuit indicators at nine locations on the circuit	Complete	Jan-12		
			Comprehensive circuit patrol	Complete	Jun-13		

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters
			Performance was driven by a tree caused outage on 10/29/12 (37% of minutes).			
-			Comprehensive circuit patrol	Complete	Jan-13	
			Replace pole identified during circuit patrol	Complete	Mar-13	
37	N. Bangor	00838-3	Replace crossarm identified during circuit patrol	Complete	Mar-13	
"		N. Banger	00050-5	Replace arresters identified during circuit patrol	Complete	Mar-13
		1	Replace insulators identified during circuit patrol	Complete	Apr-13	
			Replace arresters identified during circuit patrol	Complete	Apr-13	
			Replace arresters identified during circuit patrol	Complete	Aug-13	
38	Myerstown	00750-2	Performance was primarily driven by equipment failure (80%).			
J 36	Myerstown	00750-2	Comprehensive tree trimming	Complete	Jul-13	]
	Performance was driven by trees non-preventable outages (62%).					
			Perform accelerated backbone and three phase assessment	Complete	Jul-12	202012
	W. Boyertown	00717-1	Comprehensive tree trimming	Complete	Oct-12	3Q2012
	W. Boyentown	SOYEROWN   UUV 17-1	Main line recloser repair from annual inspection	Complete	May-13	4Q2012 1Q2013
			Install additional main line tap fuses	Complete	Aug-13	
			Perform accelerated backbone and three phase circuit assessment	Complete	Sep-13	
			Performance was driven by trees non-preventable outages (43%) and an outage calevent (41%).	used by lightning during t	severe storm	3Q2012 4Q2012
	Angelica	00129-1	Complete circuit patrol	Complete	May-12	102013
			Comprehensive tree trimming on substation source circuit	Complete	Dec-12	202013
			Perform accelerated backbone and three phase circuit assessment	Complete	Sep-13	
			Performance was driven by a trees non-preventable outage during a severe storm of	event that included a brok	en pole (82%).	
			Comprehensive circuit patrol	Complete	Apr-12	3Q2012 4Q2012
	Mohnton	00123-1	Repair sink hole surrounding main line pole	Complete	May-12	102012
			Replace main line pin insulator	Complete	Apr-13	202013
		İ	Perform accelerated backbone and three phase circuit assessment	Complete	Sep-13	]
		L	Upgrade tie switch	Complete	Sep-13	

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters
			Performance driven by two outages during a severe weather event caused by trees equipment problem (32%).	(39%) and a transmission	substation	
	Barto 00		Install additional main line tap fuses	Complete	Apr-12	1
			Comprehensive tree trimming	Complete	Apr-12	302012
		00706-1	Transmission substation equipment repair	Complete	Jul-12	4Q2012 1Q2013
			Engineering review for the installation of additional main line reclosers	Complete	Jul-12	202013
			Spot forestry inspection	Complete	Nov-12	]
			Add fault indicators and repair anchor guy on tap	Complete	Nar-13	j
			Perform accelerated backbone and three phase circuit assessment	Complete	Sep-13	1
			Performance driven by two outages caused by crossarm problems (46%) and tree non-preventable outages (38%).			
			Perform accelerated backbone assessment	Complete	Jul-12	1
			Line Manager main line patrol	Complete	Jul-12	7
			Main line crossarm replacements	Complete	Jul-12	302012 402012
	South Hamburg	00743-1	Engineering review for the installation of an additional main line recloser	Complete	Jul-12	102013
			Comprehensive tree trimming	Complete	Dec-12	202013
			Replace main line crossarm from backbone assessment	Complete	Jan-13	]
			Comprehensive circuit patrol	Complete	Sep-13	
			Replace additional main line crossarms from backbone assessment	To be completed 2013		
			Performance was driven by three outages during a severe weather event caused by	wind and a tree (90%).		3Q2012 4Q2012
	Bern Church	00791-1	Install additional main line tap fuses	Complete	Jun-12	102013
			Spot forestry inspection	Сотріете	Aug-12	202013
			Perform accelerated backbone and three phase circuit assessment	Complete	Sep-13	1

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters	
			Performance driven by trees at 73% of circuit minutes.		-		
			Perform accelerated circuit reliability assessment of main line	Complete	Mar-12		
İ			Perform accelerated circuit reliability assessment of three phase	Complete	Mar-12	]	
			Perform fuse changes at ten locations to improve circuit coordination	Complete	Jun-12	]	
		]	Perform accelerated post storm forestry vegetation assessment	Complete	Jul-12	302012	
	Mountain	007444	Perform tree work identified during accelerated post storm forestry assessment	Complete	Jul-12	402012	
		00744-4	Perform follow-up forestry vegetation assessment	Complete	Sep-12	102013	
			Perform tree work identified during follow-up forestry assessment	Complete	Sep-12	202013	
			Perform partial post Hurricane Sandy accelerated circuit reliability assessment of main line	Complete	Nov-12		
			Perform partial post Hurricane Sandy accelerated circuit reliability assessment of three phase	Complete	Nov-12		
			Perform accelerated backbone and three phase circuit assessment	To be completed 2013		1	
			Performance was driven by line failures (92%).				
			Comprehensive tree trimming	Complete	Jun-12	1	
			Accelerated patrol of circuit backbone and three phase	Complete	Aug-12	302012	
	Campbellown	00634-2	Install fault indicators two locations	Complete	Aug-12	402012 102013	
			Replace recloser on circuit backbone	Complete	Feb-13	202013	
			Replace poles at three locations to improve clearance	Complete	Jun-13	202013	
			Comprehensive circuit patrol	Complete	Jul-13	1	
			Performance was driven by trees non-preventable outages (84%).	<del></del>			
			Install radio controlled switch and radio controlled recloser with fault indicators	Complete	Oct-12	1	
		ļ ,	Perform accelerated circuit reliability assessment of backbone	Complete	Dec-12	1	
			Perform accelerated circuit reliability assessment of three phase	Complete	Dec-12	302012	
	Cly	00722-4	Perform mid cycle forestry patrol	Complete	Dec-12	402012	
	Ci,	00122-4	Forestry to perform on mid cycle backbone circuit tree trimming	Complete	Dec-12	102013	
			Perform accelerated backbone and three phase circuit assessment	Complete	Apr-13	202013	
į			Perform accelerated single phase circuit assessment	Complete	Apr-13		
			Replace/repair high priority items identified during circuit patrol	Complete	Aug-13		
			Perform wood pole inspection	To be completed 2013		]	

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters	
			Performance driven by trees at 64% of circuit minutes; and a tractor trailer pole accident at 9% of circuit minutes.				
			Perform accelerated circuit reliability assessment of main line	Complete	Apr-12		
			Perform accelerated circuit reliability assessment of three phase	Complete	Apr-12	202012	
			Perform accelerated circuit reliability assessment of single phase backbone	Complete	Apr-12	302012	
	Gardners	00752-4	Perform post Hurricane Sandy accelerated circuit reliability assessment of main line	Complete	Nov-12	402012	
			Perform post Hurricane Sandy accelerated circuit reliability assessment of three phase	Complete	Nov-12	102013	
			Replace crossarm identified on post Hurricane Sandy accelerated circuit patrol	Complete	Nov-12		
			Perform accelerated backbone and three phase circuit assessment	To be completed 2013			
		Performance was primarily driven by tree caused outages (84%) and equipment failure (9%).					
			Replace deteriorated crossarm	Complete	Jan-13	302012 402012	
	Collins	00761-2	Comprehensive tree trimming	Complete	Mar-13	102012	
			Replace deteriorated crossarm	Complete	Jul-13	202013	
		!	Perform accelerated backbone and three phase circuit assessment	To be completed in 2013		]	
			Performance was driven by a vehicle accident on 9/5/12 which contributed 57% of circuit minutes and non-preventable trees which contributed 17% of minutes.				
	Bath	00873-3	Perform accelerated backbone and three phase assessment	Complete	Jan-12	4Q2012 1Q2013	
			Perform accelerated backbone and three phase circuit assessment	To be completed 2013		202013	
			Replace percelain cutcuts on circuit backbone with polymer cutouts	To be completed 2013		202013	
			Performance was driven by non-preventable trees which contributed 33% of minute minutes and two motor vehicle accidents which contributed 19% of minutes.	es, lightning which contribu	rted 24% of	202012	
			Comprehensive tree trimming	Complete	Dec-12	3Q2012	
	Shawnee	00899-3	Install tap fuse on backbone	Complete	Dec-12	4Q2012 1Q2013	
			Forestry to perform on cycle comprehensive circuit tree trimming	Complete	Jan-13		
			Perform accelerated backbone and three phase circuit assessment	Complete	Mar-13	2Q2013	
		<u> </u>	Engineering to evaluate additional radio controlled switch on circuit	Complete	Sep-13		

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters
			Performance was driven by a storm on 9/18/12 which contributed 39% of circuit mi	nutes.		
			Replace three sets of fault indicators	Complete	Aug-12	
			Repair conditioned items from circuit assessment	Complete	Sep-12	
	Shawnee	00822-3	Install fault indicators	Complete	May-13	
	Silawilee	00022-3	Replace pole with woodpecker damage	Complete	Jul-13	
			Replace pole with woodpecker damage	Complete	Jul-13	
			Upgrade recloser from form three control to form six control	Complete	Jun-13	
			Perform accelerated backbone and three phase circuit assessment	To be completed in 2013		
	N. Bangor	00814-3	Performance was driven by an outage of unknown cause during a storm on 8/4/12 which contributed 48% of minutes and trees during a storm on 1/31/13 which contributed 26% of minutes.			
			Perform wood pole inspection	Complete	Apr-13	1
	·	<u> </u>	Install two Supervisory Control And Data Acquisition (SCADA) switches	To be completed 2013		
			Performance driven by tree non-preventable outages (51%) and one vehicle accident (26%).			
			Comprehensive tree trimming	Complete	Nov-12	
			Perform accelerated circuit reliability assessment of backbone	Complete	Apr-13	]
	Violet Hill	00524-4	Perform accelerated circuit reliability assessment of three phase	Complete	Apr-13	
		İ	Perform accelerated circuit reliability assessment of single phase	Complete	Apr-13	
			Replace pole identified during wood pole inspection	Complete	Aug-13	
	_		Replace/repair high priority items identified during circuit patrol	Complete	Aug-13	
			Performance was primarily driven by vehicle accidents (55%), outages of unknown and line failures (8%).	origins (18%), equipment	failure (14%)	
			Perform accelerated backbone and three phase circuit assessment	Complete	May-12	]
	Swatara Hill	00764-2	Replace deteriorated crossarm	Complete	Nov-12	]
	SWALATA RIM		Replace deteriorated crossarm	Complete	Nov-12	]
			Comprehensive tree trimming	Complete	Apr-13	]
			Perform accelerated backbone circuit assessment	To be completed 2013		}
			Perform accelerated backbone and three phase circuit assessment	To be completed 2013		

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters
			Performance driven by tree cause outage (63% of minutes).			
			Perform accelerated circuit reliability assessment of backbone	Complete	May-12	
		] [	Perform accelerated circuit reliability assessment of three phase	Complete	May-12	]
			Forestry to perform on cycle comprehensive circuit tree trimming	Complete	May-12	102012
	Yorkana	09708-4	Personal letter to be sent to each customer on this circuit explaining reliability improvements	Complete	May-12	2Q2012 3Q2012
			Reconfigure circuit to minimize line exposure	Complete	May-12	402012
			Perform accelerated single phase assessment	Complete	Jun-12	]
			Perform accelerated backbone and three phase circuit assessment	Complete	Jun-12	]
		<u> </u>	Perform accelerated backbone and three phase circuit assessment	To be completed 2013		<u>L</u>
			Performance was primarily driven by tree caused damage (38%), equipment damage (16%).	ge (37%) and a scissor life	contacting the	
		00720-2	Repair pole top	Complete	Mar-13	1
	Grantville		Perform wood pole inspection	Complete	Mar-13	1
			Replace recloser with new triple-single unit	Complete	May-13	
			Perform accelerated backbone and three phase circuit assessment	To be completed 2013		]
			Comprehensive tree trimming	To be completed 2013		1
			Performance was primarily driven by equipment failure (29%), line failure (21%), tunknown origin (16%) and motor vehicle accidents (6%).	ree caused damage (22%)	), outages of	
	Frystown	00701-2	Repair broken switch 75966 and return load to Stouchburg substation	Complete	Jun-13	]
			Comprehensive circuit patrol	Complete	Jul-13	]
			Replace insulators on three phase at one location	Complete	Jul-13 .	1
		}	Performance driven by a vehicle accident (52%) and trees non-preventable outage	s (17%).		1
			Complete forestry assessment of three phase for SAIFI analysis	Complete	May-12	1
			Complete accelerated backbone and three phase assessment for SAIFI analysis	Complete	Jun-12	]
i	Ringing Rocks	00708-1	Install additional main line tap fuses	Complete	Aug-12	
ļ			Spot forestry inspection	Complete	Nov-12	]
ĺ			Comprehensive tree trimming	Complete	Mar-13	]
			Perform accelerated backbone and three phase circuit assessment	Complete	Sep-13	]

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters
			Performance was driven by trees at 49% of circuit minutes and a vehicle related ou	tage accounting for 22%.		Ī
		i	Perform fuse changes at five locations to improve circuit coordination	Complete	Jun-12	]
	Allen	00503-4	Perform accelerated circuit reliability assessment of main line	Complete	Sep-12	]
( I		1	Perform accelerated circuit reliability assessment of three phase	Complete	Sep-12	}
			Perform accelerated backbone circuit assessment	To be completed 2013		
			Performance was driven by trees at 79% of circuit minutes. One tree related outage minutes.	accounted for 68% of the	circuit's	
			Replace/repair high priority items identified during circuit patrol	Complete	Mar-12	
			Perform replacement of five priority one poles	Complete	Mar-12	
	Dillsburg	00749-4	Perform accelerated circuit reliability assessment of main line	Complete	May-12	
			Perform accelerated circuit reliability assessment of three phase	Complete	May-12	1
			Replace/repair high priority item identified during circuit patrol	Complete	Nov-12	i
			Perform accelerated backbone and three phase circuit assessment	To be completed 2013		1
	Performance was driven by a vehicle accident on 4/9/12 which contributed 42% of circuit minutes and an insulator failure on Birchwood 00624-3 5/4/12 which contributed 48% of circuit minutes.					
			Perform accelerated backbone circuit assessment	Complete	Oct-13	
	Performance was driven by a conductor problem on 8/4/12 which contributed 45% of circuit minutes and non-preventable trees which contributed 35% of circuit minutes.					
	Belfast	00772-2	Perform accelerated backbone circuit assessment	Complete	Sep-13	1
			Comprehensive tree trimming	Complete	Jun-13	1
-			nt failure which contribute	ed 31% of		
			Perform accelerated backbone and three phase assessment	Complete	Mar-12	1
	Glendon	Glendon 00818-3	Reconductor three spans of main line	Complete	Dec-12	1
			Perform accelerated backbone and three phase circuit assessment	Complete	Jan-13	1
			Reconductor three spans of main line	Complete	Sep-13	]
			Comprehensive tree trimming	Complete	Sep-13	

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters
			Performance was driven by a conductor problem that accounted for 63% of circuit accounted for 17% of the circuit minutes.	minutes and a tree related	outage that	
			Perform fuse changes at five locations to improve circuit coordination	Complete	Jun-12	
	Dillsburg	00746-4	Perform accelerated circuit reliability assessment of three phase	Complete	Aug-12	
	_		Perform accelerated backbone assessment	Complete	Aug-12	
			Replace high priority items identified during circuit patrol	Complete	Dec-12	
			Perform accelerated backbone and three phase circuit assessment	To be completed 2013		1
			Performance driven by trees non-preventable outages (68%).			
			Replace main line recloser battery	Complete	May-12	1
	l in-	89737-1	Perform accelerated backbone and three phase assessment	Complete	Jul-12	
	Lynnville	00/3/-1	Complete engineering main line coordination study	Complete	Jan-13	)
			Comprehensive tree trimming	Complete	Sep-13	
			Perform accelerated backbone and three phase assessment	To be completed 2013		l
			Performance was driven by two outages related to a vehicle accident (67%) and an	outage caused by lightnin	ng (18%).	
			Replace main line crossarm from backbone assessment	Complete	Apr-12	
			Replace additional main line porcelain cutouts with polymer cutouts	Complete	Apr-12	
			Comprehensive circuit patrol	Comptete	Apr-12	
	•		Install main line recloser	Complete	May-12	
	Bernville	00786-1	Spot forestry inspection	Complete	Nov-12	
			Install additional main line tap fuses	Complete	Dec-12	
			Perform wood pole inspection	Complete	Mar-13	
			Pole replacements from pole inspections	Complete	May-13	]
			Perform accelerated backbone and three phase circuit assessment	To be completed 2013		]
		<u> </u>	Comprehensive tree trimming	To be completed 2013		
			Performance driven by trees non-preventable outages (70%).			
			Comprehensive circuit patrol	Complete	Apr-12	
			Replace crossarms from circuit assessment	Complete	Apr-12	]
	Bernville	00787-1	Replace batteries on main line reclosers	Complete	Jun-12	]
			Replace arresters on main line recloser	Complete	Dec-12	]
			Comprehensive tree trimming	Complete	Mar-13	Į l
			Perform accelerated backbone and three phase circuit assessment	To be completed 2013		

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters
			Performance was primarily driven by wind caused damage (62%) and vehicle accident	lents (32%).		
	N. Lebanon	00715-2	Perform accelerated backbone and three phase circuit assessment	Complete	Jun-12	
	N. Lebanon	00713-2	Perform accelerated backbone and three phase circuit assessment	To be completed 2013		
			Comprehensive tree trimming	To be completed 2013		
			Performance was primarily driven by vehicle accidents (57%), tree caused damage	(21%) and forced outage	s (16%).	
		,	Perform accelerated three phase circuit assessment	Complete	Jul-12	1
	S. Lebanon	00772-2	Perform accelerated backbone assessment	Camplete	Jul-12	1
	S. Cepanon	00112-2	Install fault indicators at two locations	Complete	Aug-13	]
			Replace deteriorated crossarm	Complete	Jul-13	
			Perform accelerated backbone and three phase circuit assessment	To be completed 2013		
			Performance was driven by an outage caused by line failure while circuit was used as an alternate source (33%), an outage caused by lightning during a severe storm event (31%) and an outage caused by a fuse holder problem (23%).			
	Carsonia	00171-1	Perform accelerated backbone assessment	Complete	Sep-12	]
			Create new circuit tie	Complete	Mar-13	
			Perform accelerated backbone assessment	Complete	Sep-13	]
			Ferformance was driven by trees non-preventable outages (66%) and an outage ca	used by a fuse holder pro	blem (20%).	
	1	00700.4	Comprehensive tree trimming	Complete	Nov-12	1
	Lyons	00729-1	Main fine forestry inspection	Complete	Nov-12	
			Comprehensive circuit patrol	Complete	May-13	
			Performance driven by an outage during a severe storm event where no permanent non-preventable outages (39%).	condition was identified (	12%) and trees	
			Replace main line crossarms from comprehensive patrol	Complete	jun-12	
	Baldy	00736-1	Engineering review for the installation of an additional main line recloser	Complete	Jul-12	]
		50.00-1	Comprehensive tree trimming	Complete	Dec-12	
			Install new main line rectoser	Complete	May-13	]
			Upgrade and relocate existing main line rectoser	Complete	May-13	]
			Perform accelerated backbone and three phase circuit assessment	Complete	Sep-13	

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters
_			Performance driven by an outage caused by an arrester problem (35%), outages caused by lightning (30%) and a vehicle accident (13%).			
	Friedensburg	00769-1	Replace crossarms from circuit assessment	Complete	Feb-12	
			Perform accelerated backbone and three phase assessment	Complete	Jul-12	]
			Install additional main line disconnects and fault indicators at one location	Complete	Sep-13	]
			Performance was driven by non-preventable trees, with 63% of circuit minutes due	to single storm on 7/7/11.		
	Shawnee	00837-3	Forestry to perform on cycle comprehensive circuit tree trimming	Complete	Jan-12	
	Saawnee	00037-3	Perform accelerated backbone and three phase assessment	Complete	Jan-12	
			Comprehensive circuit patrol	Complete	Mar-13	
			Performance was driven by a line failure caused outages (82% of minutes).			
	Vaa	00559-4	Perform mid-cycle forestry patrol.	Complete	Aug-12	
	Yoe	0055 <del>5-4</del>	Replace/repair high priority items identified during circuit patrol	Complete	Oct-12	
			Comprehensive circuit patrol	To be completed 2013	-	
	_		Performance was driven by non-preventable tree caused outages (61% of minutes).			
			Install additional fusing on the circuit	Complete	Mar-12	
			Install additional fusing on the circuit	Complete	Mar-12	
			Perform accelerated circuit reliability assessment of backbone	Complete	Jun-12	
			Perform accelerated circuit reliability assessment of three phase	Complete	Jun-12	
	Windsor	00797-4	Replace/repair high priority items identified during circuit patrol	Complete	Dec-12	
			Comprehensive tree trimming	Complete	Nov-12	
			Perform accelerated circuit reliability assessment of backbone	Complete	Dec-12	
			Perform accelerated circuit reliability assessment of three phase	Complete	Dec-12	
[ [			Comprehensive circuit patrol	Complete	Mar-13	
			Replace/repair high priority items identified during circuit patrol	Complete	May-13	
	Performance driven by overhead conductor problems that accounted for 34% of circuit minutes, underground cable problems at 24% of circuit minutes, and trees that accounted for 16% of circuit minutes.					
			Perform accelerated circuit reliability assessment of main line	Complete	Mar-12	
	Mountain	00742-4	Perform accelerated circuit reliability assessment of three phase	Complete	Mar-12	1
			Replace/repair high priority items identified during circuit patrol	Complete	Apr-12	
j			Replace three spans of underground primary cable	Complete	Jul-12	
			Perform accelerated backbone and three phase circuit assessment	To be completed in 2013		

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters	
	-		Performance driven by a conductor problem that accounted for 53% of circuit minucircuit minutes.	tes and trees that account	ed for 35% of		
			Replace recloser damaged during storm	Complete	Jan-12		
	Mountain	00743-4	Perform accelerated circuit reliability assessment of main line	Complete	Mar-12		
			Perform accelerated circuit reliability assessment of three phase	Complete	Mar-12		
			Replace/Repair high priority item identified during circuit patrol	Complete	May-12	,	
			Perform accelerated backbone and three phase circuit assessment	To be completed in 2013			
		Performance was driven by vehicle accidents (31%), tree damage (34%) and an outage of unknown origin (33%).					
	North Cornwall	00610-2	Comprehensive tree trimming	Complete	Dec-12		
			Replace deteriorating insulator	To be completed in 2013			
		Performance was primarily driven by tree caused outages (70%), equipment failure (14%) and evian caused outages (8%)					
			Perform accelerated backbone assessment	Complete	Jul-12		
			Perform accelerated three phase circuit assessment	Complete	Jul-12		
	Grantville	00721-2	Correct four coordination issues	Complete	Oct-12		
			Retocate recloser 72132	Complete	Aug-13		
			Perform accelerated backbone and three phase circuit assessment	To be completed in 2013			
			Comprehensive tree trimming	To be completed in 2013			
		Performance was driven by an outage of unknown origin (92%) and conductor failure (6%).					
			Perform accelerated three phase circuit assessment	Complete	Jul-12		
	South Lebanon	00780-2	Perform accelerated backbone assessment	Complete	Jul-12		
			Perform accelerated backbone and three phase circuit assessment	To be completed in 2013			
			Install fault indicators at two locations	To be completed in 2013			

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters
			Performance was driven by non-preventable tree caused outages (43% of minutes)	and one vehicle caused o	utage (26% of	
	:		minutes).			
			Install additional fusing on the circuit	Complete	Mar-12	
	Windsor	00796-4	Perform accelerated circuit reliability assessment of backbone	Complete	May-12	
ì	77110501	00130-4	Perform accelerated circuit reliability assessment of three phase	Complete	May-12	-
,			Install additional fuse on the circuit	Complete	Mar-12	
ļ			Comprehensive tree trimming	Complete	Dec-12	
			Comprehensive circuit patrol	Complete	Feb-13	
			Performance driven by one outage caused by customer equipment failure (64% of	minutes).		
1 1			install additional fuse on the circuit	Complete	Feb-12	
1	Glades	00580-4	install an additional main line rectoser.	Complete	May-12	
	Giaucs	00300-4	Perform accelerated circuit reliability assessment of backbone	Complete	Aug-12	
1			Perform accelerated circuit reliability assessment of three phase	Complete	Aug-12	
	_		Perform accelerated backbone and three phase circuit assessment	To be completed in 2013		
			Performance was driven by equipment failures (46%) and lightning damage (34%).			
	Swatara Hill		Perform accelerated backbone assessment	Complete	Apr-12	
		00763-2	Repair broken insulator on three phase	Complete	Jul-12	
			Accelerated circuit assessment three phase	Complete	Apr-12	
			Balance load beyond recloser 76342	Complete	Sep-12	
			Perform accelerated backbone and three phase circuit assessment	To be completed in 2013		

## BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Joint 3<sup>rd</sup> Quarter 2013 Reliability Report -

Metropolitan Edison Company, :

Pennsylvania Electric Company and Pennsylvania Power Company – Public

Version :

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## **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 first class mail, as follows:

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300 North Second Street
Harrisburg, PA 17101

Tanya McCloskey Office of Consumer Advocate 555 Walnut Street 5<sup>th</sup> Floor Forum Place Harrisburg, PA 17101-1923

Dated: November 1, 2013

Tori L. Giesler
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