

2800 Pottsville Pike P.O. Box 16001 Reading, PA 19612-6001

610-929-3601

August 1, 2011

## RECEIVED

AUG 1 2011

Rosemary Chiavetta, Secretary Pennsylvania Public Utility Commission P.O. Box 3265 Harrisburg, PA 17120

PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU

Re: Joint 2<sup>nd</sup> Quarter 2011 Reliability Report - Pennsylvania Power Company, Pennsylvania Electric Company, and Metropolitan Edison Company - Pursuant to 52 Pa. Code §57.195(d) and (e)

Dear Secretary Chiavetta:

Enclosed for filing on behalf of Pennsylvania Power Company, Pennsylvania Electric Company, and Metropolitan Edison Company (collectively, the "Companies") is an original and six (6) copies of the Joint 2<sup>nd</sup> Quarter 2011 Reliability Report – Public Version, pursuant to 52 Pa. Code §57.195(d) and (e).

On December 22, 2004, the Companies filed an Application for Protective Order at Docket No. L-000301061. The Application was granted, allowing the Companies to file proprietary versions of the quarterly reliability reports. The Proprietary Version of this report is being filed under separate cover.

Sincerely,

Douglas S. Elliott

President, Pennsylvania Operations

Par

(610) 921-6060

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Erić J. Dickson

Director, Operations Services

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# BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

RECEIVED

Joint 2<sup>nd</sup> Quarter 2011 Reliability Report : Public Version – Pennsylvania Power :

AUG 1 2011

Company, Pennsylvania Electric Company : and Metropolitian Edison Company - :

PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU

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

### **CERTIFICATE OF SERVICE**

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

Service by overnight United Parcel Service, as follows:

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

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

Irwin Popowsky, Esq.
Tanya McCloskey, Esq.
Office of Consumer Advocate
5th Floor Forum Place

Daniel Asmus, Esq. Office of Small Business Advocate 300 North 2<sup>nd</sup> Street

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Dated: August 1, 2011

Original Signed:

Lori B. Barman

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PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU

## **FECEIVED**

AUG 1 2011



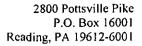
PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU



# Joint 2011 2<sup>nd</sup> Quarter Reliability Report

Pennsylvania Power Company, Pennsylvania Electric Company and Metropolitan Edison Company

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



FirstEnergy,

610-929-3601

August 1, 2011

Rosemary Chiavetta, Secretary Pennsylvania Public Utility Commission P.O. Box 3265 Harrisburg, PA 17120

Re: Joint 2<sup>nd</sup> Quarter 2011 Reliability Report - Pennsylvania Power Company, Pennsylvania Electric Company, and Metropolitan Edison Company - Pursuant to 52 Pa. Code §\$7.195(d) and (e)

#### Dear Secretary Chiavetta:

Enclosed for filing on behalf of Pennsylvania Power Company, Pennsylvania Electric Company, and Metropolitan Edison Company (collectively, the "Companies") is an original and six (6) copies of the Joint 2<sup>nd</sup> Quarter 2011 Reliability Report – Public Version, pursuant to 52 Pa. Code §57.195(d) and (e).

On December 22, 2004, the Companies filed an Application for Protective Order at Docket No. L-000301061. The Application was granted, allowing the Companies to file proprietary versions of the quarterly reliability reports. The Proprietary Version of this report is being filed under separate cover.

Sincerely,

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

Eric J. Dickson
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Director, Operations Services
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## Joint 2<sup>nd</sup> Quarter 2011 Reliability Report – Pennsylvania Power Company, Pennsylvania Electric Company and Metropolitan Edison Company

The following Joint 2<sup>nd</sup> Quarter 2011 Reliability Report is filed on behalf of Pennsylvania Power Company ("Penn Power"), Pennsylvania Electric Company ("Penelec"), and Metropolitan Edison Company ("Met-Ed"), collectively referred to as the "Companies" for the period-ending June 30, 2011.

<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.

## Major Events

FirstEnergy Company	Customers Affected		uration of the vent	Cause of the Event	Commission Approval Status		
		Duration	20 hours 6 minutes				
Penn Power	22,009	Start Date/Time	April 17, 2011 11:54am	High winds	Approved May 18, 2011		
		End Date/Time	April 18, 2011 8:05am				
	Duration		Dur		11 hours 24 minutes		Commission Staff
Penn Power	42,218	Start Date/Time	May 24, 2011 7:19pm	Transmission conductor full tension splice failure	verbally indicated this exclusion request is acceptable on		
		End Date/Time	May 25, 2011 6:43am		July 27, 2011		
	Duration 6		6 days 6 hours 8 minutes	High winds with	Commission Staff verbally indicated		
Penelec	74,725	Start Date/Time	May 25, 2011 8:52pm	<ul> <li>heavy rain and severe thunderstorms</li> </ul>	this exclusion request is acceptable on		
		End Date/Time	June 1, 2011 3:00am		July 27, 2011		

<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

<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

2Q 2011		enn Powe	,		Penelec		,	Met-Ed	19.43
(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	0.93	1.26	1.52	1.32	1.15	1.38	1.42 <sup>2</sup>
CAIDI	101	121	126 <sup>3</sup>	117	141	117	117	140	114
SAIDI	113	162	118	148	213	155	135	194	162
Customers Served <sup>(a)</sup>		158,462	-		585,496			548,397	
Number of Sustained Interruptions		3,125			12,006			9,788	
Customers Affected		147,853			774,271		•	779,596	
Customer Minutes		18,626,885		9	90,659,088			88,992,379	

<sup>(</sup>a) Represents the average number of customers served during the reporting period.

	Penn Power
SAIFI	31% better than Commission's 12-Month Standard 17% better than Commission's Benchmark
SAIDI	27% better than Commission's 12-Month Standard
	Penelec
SAIFI	13% better than Commission's 12-Month Standard 5% improvement over 12-Month Rolling Actual for 1Q2011
CAIDI	17% better than Commission's 12-Month Standard Equal to Commission's Benchmark 5% improvement over 12-Month Rolling Actual for 1Q2011
SAIDI	27% better than Commission's 12-Month Standard 10% improvement over 12-Month Rolling Actual for 1Q2011
	Met-Ed
SAIFI	3% improvement over 12-Month Rolling Actual for 1Q2011
CAIDI	19% better than Commission's 12-Month Standard 3% better than Commission's Benchmark
SAIDI	16% better than Commission's 12-Month Standard

<sup>&</sup>lt;sup>2</sup> Met-Ed's SAIFI has shown a 3% improvement over 1Q2011, however the higher-than-normal SAIFI is directly attributed to several non-excludable storm events. In 2011, Met-Ed will continue a series of reliability improvement initiatives to "harden" the three-phase distribution backbone. Examples of these SAIFI initiatives include SAIFI engineering analysis on the high SAIFI circuits and installing additional fuses and reclosers as well as continued emphasis on improved handling of Forestry Management to target overhang and off-corridor danger trees.

<sup>&</sup>lt;sup>3</sup> Penn Power's higher-than-normal CAIDI is directly attributed to several non-excludable storm events as well as a substation vandalism incident. The substation vandalism resulted in a 16 minute CAIDI impact. In addition, Penn Power has experienced 19 non-excludable storm events in the first half of 2011 as compared to their historical average of 8 non-excludable storm events. These non-excludable storm events have contributed to 53% of the year to date total customer minutes of interruption.

<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

Penn Power, Penelec, and Met-Ed's ranking of the 5% Worst Performing Circuits are provided in Attachment A of 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 Action

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

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

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<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

the state of the s	Outages by	Cause				
2nd Quarter 2011	Penn Power					
12-Month Rolling  Cause	Customer Minutes	Number of Sustained Interruptions	Customers Affected	% Based on Number of Outages		
TREES/NOT PREVENTABLE	6,517,582	733	33,459	23.46%		
LIGHTNING	1,981,360	418	13,819	13.38%		
EQUIPMENT FAILURE	1,715,550	397	37,735	12.70%		
ANIMAL	680,530	392	9,859	12.54%		
BIRD	322,471	316	5,061	10.11%		
LINE FAILURE	2,091,872	304	13,116	9.73%		
UNKNOWN	641,959	158	7,542	5.06%		
VEHICLE	1,167,681	90	8,785	2.88%		
OVERLOAD	136,051	81	2,297	2.59%		
FORCED OUTAGE	197,158	64	7,092	2.05%		
PREVIOUS LIGHTNING	39,823	46	380	1.47%		
HUMAN ERROR -NON-COMPANY	153,635	40	2,841	1.28%		
TREES/PREVENTABLE	86,884	40	570	1.28%		
CUSTOMER EQUIPMENT	10,453	10	129	0.32%		
HUMAN ERROR - COMPANY	52,172	9	638	0.29%		
OBJECT CONTACT WITH LINE	6,634	8	162	0.26%		
UG DIG-UP	6,027		16	0.22%		
VANDALISM	2.814,964	5	4,335	0.16%		
OTHER ELECTRIC UTILITY	1,724	2	8	0.06%		
ICE	1,510	2	4	0.06%		
FIRE	302	2	4	0.06%		
WIND	543	1	1	0.03%		
TOTAL	18,626,885	3,125	147,853	100.00%		

#### Proposed Solutions - Penn Power

#### Trees Non-Preventable

Forestry Services reviews the "Trees Non-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. In addition, additional assessments on eleven of Penn Power's circuits with significant tree caused outages have been completed through May 2011.

#### Lightning

The number of lightning caused outages are mitigated through Penn Power's reliability improvement strategy. This includes the 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 line 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.

#### Equipment Failure

The number of equipment failures are 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.

Penn Power's review has shown an increase in the number of outages from cutouts. Porcelain cutouts were found to be the major cause for cutout-related outages, resulting in the discontinued use of porcelain cutouts for new installations, and older porcelain cutouts are being replaced with new polymer cutouts when they fail.

In 2010, 101 of Penn Power's circuits main feed three phase backbone was inspected twice, once in the winter/spring and once in the fall, to identify critical problems before they cause an outage. Infrared scanning of three phase backbone occurred on 9 circuits. These scans find "hot spots" that are repaired before they can cause an outage. In addition, comprehensive helicopter inspections were performed on 119 miles of 69kV lines to identify critical problems before and outage is caused.

Following a series of storms in May 2011, Penn Power performed inspections on the three phase backbones of 19 circuits which were hit hard by the weather. Critical items likely to cause an outage were identified for repair before an outage is caused.

## Outages by Cause - Penelec

	Outages by	y Cause				
2nd Quarter 2011 12-Month Rolling	Penelec					
Cause	Customer Minutes	Number of Sustained Interruptions	Customers Affected	% Based on Number of Outages		
EQUIPMENT FAILURE	30,384,315	3,644	282,379	30.35%		
UNKNOWN	7.216,447	1,812	78,118	15.09%		
TREES/NOT PREVENTABLE	22,550,467	1,746	131,025	14.54%		
ANIMAL	1,303,369	1,143	15,538	9.52%		
LINE FAILURE	13,269,948	1,062	123,425	8.85%		
FORCED OUTAGE	3,704,262	676	40,920	5.63%		
LIGHTNING	3,536,952	472	31,078	3.93%		
VEHICLE	4,245,432	357	28,651	2.97%		
BIRD	388,075	323	5,819	2.69%		
OVERLOAD	815,322	158	9,359	1.32%		
OTHER ELECTRIC UTILITY	323,803	103	2,386	0.86%		
HUMAN ERROR -NON-COMPANY	1,086,937	91	8,520	0.76%		
HUMAN ERROR - COMPANY	73,582	88	2,654	0.73%		
PREVIOUS LIGHTNING	173,435	80	3,553	0.67%		
UG DIG-UP	338,592	66	1,762	0.55%		
TREES/PREVENTABLE	40,977	42	355	0.35%		
ICE	19,788	39	143	0.32%		
OBJECT CONTACT WITH LINE	562,656	32	2,784	0.27%		
FIRE	40,569	20	307	0.17%		
VANDALISM	348,837	18	1,489	0.15%		
CUSTOMER EQUIPMENT	28,449	15	198	0.12%		
CONTAMINATION	4,050	7	65	0.06%		
SWITCHING ERROR	171,948	6	3,391	0.05%		
OTHER UTILITY-NON ELEC	29.356	5	333	0.04%		
WIND	1,520	1	19	0.01%		
TOTAL	_90,659,088	12,006	774,271	_100.00%		

#### Proposed Solutions – Penelec

#### Equipment Failure

Porcelain cutout failures represent approximately one third of the equipment failure outages in Penelec. To address this cause, Penelec has been replacing porcelain cutouts with polymer cutouts on the main feed three phase backbone of circuits since 2009.

In addition, inspection and maintenance practices, such as overhead circuit inspections, identify and correct potential equipment-related problems before they cause an outage. Penelec's entire main feed three-phase backbone system has been inspected at least once since 2008 and is currently on a 5 year cycle of inspections. 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 Outages

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.

#### Trees Non-Preventable

Forestry Services reviews the "Trees Non-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 dead or diseased 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 inspections identify off right-of-way trees that present a hazard to power lines. Circuits are then prioritized by customer minutes due to "Trees Non-Preventable" outages. A patrol of the entire circuit is performed and Forestry Services works with private property owners to remove any potentially dangerous tree conditions. This practice has been adopted as part of our normal tree trimming maintenance program.

## Outages by Cause - Met-Ed

	Outages by C	ause 🧎 🦭				
2nd Quarter 2011 12-Month Rolling	Met-Ed					
Cause	Customer Minutes	Number of Sustained Interruptions	Customers Affected	% Based on Number of Outages		
EQUIPMENT FAILURE	15,955,373	2,501	31,627	25.55%		
TREES/NOT PREVENTABLE	36,074,913	2,036	1,952	20.80%		
ANIMAL	2,797,769	1, <u>4</u> 34	104	14.65%		
UNKNOWN	3,838,229	1,036	198.855	10.58%		
LINE FAILURE	10,337,418	914	28	9.34%		
LIGHTNING	3,492,954	395	56,654	4.04%		
FORCED OUTAGE	3,137,625	352	26,246	3.60%		
VEHICLE	6,438,572	298	11,275	3.04%		
IBIRD	154,734	209	13	2.14%		
TREES/PREVENTABLE	561,611	149	27,638	1.52%		
OVERLOAD	573,506	95	79,426	0.97%		
HUMAN ERROR -NON-COMPANY	656,658	80	4,798	0.82%		
PREVIOUS LIGHTNING	115,880	67	4,204	0.68%		
HUMAN ERROR - COMPANY	370,714	52	79	0.53%		
WIND	3,029,355	51	6,487	0.52%		
UG DIG-UP	82,446	36	1,042	0.37%		
OBJECT CONTACT WITH LINE	554,040	25	192,094	0.26%		
VANDALISM	377,006	18	6,198	0.18%		
CUSTOMER EQUIPMENT	9,666	17	329	0.17%		
OTHER ELECTRIC UTILITY	408,105	14	52,590	0.14%		
FIRE	8,633	4	3,142	0.04%		
ICE	1,123		56,863	0.03%		
OTHER UTILITY-NON ELEC	16,049	2	17,952	0.02%		
TOTAL	88,992,379	9,788	779,596	100.00%		

#### Proposed Solutions - Met-Ed

#### Equipment Failure

The number of equipment failures are 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.

#### Trees Non-Preventable

Forestry Services reviews areas where "Trees Non-Preventable" outages occur to see if there has been a high frequency of occurrence. 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 the Danger / Priority Tree program, circuits identified by the Engineering Department 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 identify any potentially dangerous tree conditions. If the tree cannot be removed, overhang at the location is removed.

#### **Animal**

Animal guards are installed on equipment where high frequencies of animal-related outages are 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.

<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

Increation	and Maintenance	Pe	nn Powe	er	1. 5	Penelec			Met-Ed	artini, Nahi ta — Li⊋a ≇
	and Maintenance 2011	Planned Completed		Planned	Com	pleted	Planned Completed			
	F722	Annual	2Q	YTD	Annual	2Q	QTY	Annual	2Q	YTD
Forestry	Transmission (Miles)	30.39	9.00	30.00	185.35	18.00	18.00	78.58	24.00	24.00
Tolesay	Distribution (Miles)	1,136	298	617	3,729	893	1,664	2,874	629	1,223
Transmission	Aerial Patrols	2	1	1	2	1	1	2	1 .	1
·	Groundline⁴	0	0	0	1,301	0	0	0	0	0
	General Inspections	960	240	480	4.956	1,239	2,478	2,616	654	1,308
Substation	Transformers	125	70	125	761	160	722	337	184	308
Gubstation	Breakers	36	26	29	439	138	382	241	84	146
	Relay Schemes	87	28	52	736	221	504	315	30	157
	Capacitors	995	3	998	8,654	158	8,654	4,621	6	4,627
Distribution	Poles	10,600	8,844	10,718	41,111	34,178	34,178	28,433	0	31,428
2.50.500011	Reclosers	748	383	383	2.478	0	0	901	0	901
	Radio-Controlled Switches		wer has no olled switch		2.164	870	1,082	98 <sup>5</sup>	49	49

General Note

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

<sup>&</sup>lt;sup>4</sup> Transmission groundline inspections:

Penn Power includes 69kV and 138kV

Penelec includes 115kV

Met-Ed includes 69kV, 115kV and 230 kV

<sup>&</sup>lt;sup>5</sup> Plan number changed from 92 to 98 due to the installation of additional switches

<u>Section 57.195(e)(7):</u> 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 or FERC account code as available. (For first, second and third quarter reports only).

Budgeted vs. Actual T&D Operation & Maintenance Expenditures<sup>6</sup>

n de la companya de l	T&D O&	M - 2Q / Y	/TD June	2011 (\$)		
Company	PUC Category	2Q Actuals	2Q Budget	YTD Actual	YTD Budget	Annual Budget
	Corrective Maintenance	295,507	101,603	499,684	173,769	368,409
	Preventive Maintenance	167,078	0	266,861	0	0
Penn Power	Storms	333,108	301,394	483,367	592,888	1,195,123
remi rowei	Vegetation Management	127,833	236,846	255,103	503,687	884,234
	Misc	1,025,979	1,331,849	1,781,559	2,706,039	5,186,713
	Operations	386,913	372,608	1,023,264	906,982	1,402,946
	Penn Power Total	2,336,418	2,344,300	4,309,838	4,883,365	9,037,425
	Corrective Maintenance	816,799	941,056	1,598,549	1,745,890	3,695,388
	Preventive Maintenance	1,642,649	1,285,008	3,050,358	2,398,264	5,032,902
Penelec	Storms	2,913,576	971,570	3,424,010	1,863,734	3,866,263
reneiec	Vegetation Management	1,449,055	1,108,838	2,216,315	1,817,214	4,986,170
	Misc	2,587,434	3,479,779	4,831,840	6,618,005	13,844,151
	Operations	3,499,112	3,931,469	7,255,043	8,678,716	16.212,823
	Penelec Total	12,908,625	11,717,720	22,376,115	23,121,823	47,637,697
	Corrective Maintenance	626,587	656,987	1,287,708	1,311,562	2,656,243
	Preventive Maintenance	628,838	960,979	1,310,214	1,865,776	3,733,258
Met-Ed	Storms	2,165,148	2,213,884	7,049,456	4,304,919	8,796,475
Met-Lu	Vegetation Management	1,111,645	1,024,944	1,710,545	1,870,466	4,784,291
	Misc	2,762,667	2,593,581	4,924,537	4,821,299	9,672,868
	Operations	3,202,746	3,265,304	6,713,196	6,546,971	11,637,799
	Met-Ed Total	10,497,631	10,715,679	22,995,656	20,720,993	41,280,934
Grand Total		25,742,674	24,777,699	49,681,609	48,726,181	97,956,056

<sup>&</sup>lt;sup>6</sup> Budgets subject to change

<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>7</sup>

T8	D Capital Only Inclu	des CIAC	(net) - 2	Q/YTD J	une 2011	(\$)
Company	PUC Category	2Q Actual	2Q Budget	YTD Actual	YTD Budget	Annual Budget
	New Business	1,008,222	715,770	2,239,401	1,143,173	2,860,500
	Reliability	1,191,032	2,421,659	1,911,027	4,581,243	8,884,642
Penn Power	Capacity	289,282	287,789	485,739	511,226	516,666
reilli rowei	Misc*	80,802	131,966	586,998	652,693	1,302,047
	Forced	2.317,502	1,343,204	3,914,724	2,573,894	4,805,563
	Vegetation Management	1,246,253	1,265,675	2,609,486	2,726,069	4 <u>,867,</u> 980
	Penn Power Total	6,133.093	6,166,063	11,747,376	12,188,298	23,237,398
	New Business	3,718,826	5,130,080	7,321,701	9,260,686	19,321,082
	Reliability	3,904,304	10,854,127	14,530,744	24,084,914	39,198,455
Penelec	Capacity	5,051,828	3,517,940	10,246,774	10,691,302	18,435,969
reneiec	Misc*	(188,819)	3,191,814	499,968	8,004.784	17,564,055
	Forced	16,194,814	9,658,184	23,290,712	14,946,746	28,527,644
_	Vegetation Management	4,307,649	4,276,654	8,226,491	7,618,089	15,669,629
	Penelec Total	32.988,601	36,628,799	64,116,391	74,606,521	138,716,834
_	New Business	3,339,537	5,477,362	6,796,008	10,497,498	21,454,639
	Reliability	5,748,376	5,776,197	10,591,043	11,998,698	25,848,587
Met-Ed	Capacity	2,661,027	1,023,639	4,512, <del>9</del> 25	3,406,439	7,944,344
WEI-LU	Misc*	(1,118,355)	2,987,610	551, <del>9</del> 38	5,636,781	9,552,347
	Forced	10,498,003	5,075,657	16,106,221	10,847,747	21,518,803
	Vegetation Management	4,242,672	3,826,726	7,917,232	7,507,770	15,756,410
	Met-Ed Total		24,167,191	46,475,367	49,894,932	102,075,130
Grand Total		64,492,954	66,962,053	122,339,134	136,689,751	264,029,362

<sup>&</sup>quot;Misc 2Q and YTD actuals reflect timing of construction overhead clearing.

<sup>&</sup>lt;sup>7</sup> Budgets subject to change

<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

<u>,</u>	Penn Power 2011	÷ ;			4
Department	Staff	1Q	2Q	3Q	4Q
Line	Leader / Chief	27	28		
Line	Lineman	54	63		
Substation	Technician	6	3		
Substation	Construction & Maintenance (C&M)	14	20		
	Total	101	114	-	

	Peñelec 2011				*
Department	Staff	1Q	2Q	3Q	4Q
Line	Leader / Chief	140	148		
Line	Lineman	189	196		
Substation	Technician	8	6		
Substation	Construction & Maintenance (C&M)	69	71		
-	Total	406	421		

	Met-Ed 2011	1			
De partment	Staff	1Q	2Q	3Q	4Q
Line	Leader / Chief	53	52		
Lille	Lineman	159	168		
Substation	Technician	12	10		
Substation	Construction & Maintenance (C&M)	57	58		
	Total	281	288		-

<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.

Section 57.195(e)(11): 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.



## ATTACHMENT A

Worst Performing Circuits - Reliability Indices

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

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The Companies define their 5% worst performing circuits based on SAIDI. The Companies use SAIDI as a measure of circuit performance. The SAIDI index is a measure of the total customer minutes of distribution outages on the circuit. Beginning in 2006, distribution circuits were ranked based on SAIDI contribution to the overall Company SAIDI (customer minutes).

Penn Pov	wer-				•							<u>.</u>	
Circuit Rank	Substation	Circuit Desc	District	· Average Customers (1)	Outages (2)	Lockouts (3)	Customer litinutes (4)	Customers Affect∈d (5)	SAEDI Impaca (6)	SAERI (7)	SAIFI (7)	CAIDI (7)	MAJFI (7)
1	ZELENOPLE	D603	ZELIENOPLE	1,218	22	0	331,386	1,264	2.09	272	1.04	262	0.00
2	THOMPSON RUN	D550	ZELIENOPLE	1,019	16	O	301,644	1,685	1.90	296	1,65	179	0.00
3	ELLWOOD SW STR	D590	ZELENOPLE	1,656	10	0	298,959	1,202	1.88	181	0.73	249	0.00
4	CANAL	W-102	CLARK	1,602	16	1	250,630	1,909	1.58	156	1,19	131	1.00
5	STONEBORO	W-131	CLARK	1,430	20	0	239,471	567	1.51	167	0.40	422	0.14
6	DARLINGTON	0-535	ZELENOPLE	530	10	0	233,949	428	1.47	441	0.81	547	0.00
7	DARLINGTON	D-536	ZELIENOPLE	1,048	18	0	190,888	684	1.20	182	0.65	279	0.00
8	PERRY	W-156	CLARK	1,042	15	0	168,504	646	1.b6	162	0.62	261	0.99
9	KOPPEL	D-532	NEW CASTLE	1,198	11	0	164,466	1,073	1.04	137	0.90	153	0.00

<sup>(1)</sup> Average number of customers served by the circuit for the 12-month period.

<sup>(2)</sup> Number of unique outages experienced by one or more customers on the circuit during the period, due to distribution outage causes.

<sup>(3)</sup> Number of circuit lockouts during the period.

<sup>(4)</sup> Total customer minutes of outage during the period due to distribution outage causes.

<sup>(5)</sup> Number of customer outages during the period due to distribution outage causes.

<sup>(6)</sup> Impact of the distribution outages on this circuit to Penn Power's SAIDI.

<sup>(7)</sup> Distribution circuit SAIDI, SAIFI, CAIDI and MAIFI 12-Month Rolling due to distribution outage causes.

Penelec													
Circuit Rank	Substation	Circuit Desc	District	Average Customers (1)	Outages (2)	Lockouts (3)	Customer Manutes (4)	Customers Affected (5)	SAID! Impact (6)	SAIDI (7)	SAIFI (7)	CAIDI (7)	MAIFI (7)
1	Springboro	00237-52	Meadville	2,852	85	Ö	1,497,958	7,297	2.56	525	2.56	205	15.71
2	Union City	00206-43	Corry	3,775	120	0	986,738	5,504	1.69	261	1.46	179	8.16
3	Blairsville East	00080-13	Indiana	1,081	23	0	959,372	4,779	1.64	887	4.42	201	2.86
4	Warren South	00220-41	Warren	2,971	77	1	901,989	8,142	1.54	304	2.74	111	6.17
5	DuBois	00137-23	DuBois	2,896	73	0	880,183	4,132	1.50	304	1.43	213	2.14
6	Grover	00527-63	Mansfield	1,059	64	1	838,667	2,921	1.43	792	2.76	287	4.91
7	Birmingham	00168-22	Phtipsburg	1,052	45	2	824,550	4,876	1.41	784	4.63	169	3,58
8	Logan	00700-81	Lewistown	1,035	41	1	754,225	2,803	1.29	729	2.71	269	16,46
9	East Pike	00096-13	Indiana	2,617	24	0	746,933	3,885	1.28	285	1,48	192	4.57
10	Honey Grove	00135-83	Shippensburg	426	19	0	723,250	932	1.24	1,698	2.19	776	8.55
11	Blairsville East	00082-13	Indiana	1,593	34	3	715,048	7,428	1.22	449	4.66	96	31.16
12	Erie South	00259-31	Erie	2,450	77	0	695,889	6,028	1.19	284	2.46	115	0.32
13	McVeytown	00112-81	Lewistown	1,359	56	1	666,995	1,806	1.14	491	1.33	369	10,86
14	Starrucca	00744-65	Montrose	872	30	1	623,359	2,316	1.06	715	2.66	269	9.70
15	Mansfield	00559-63	Mansfield	541	29	3	607,074	2,217	1.04	1,122	4.10	274	11,15
16	Madera	00166-22	Philipsburg	2,234	74	o	601,030	4,351	1.03	269	1.95	138	6.67
17	Scalp Level	00932-11	Johnstown	865	22	0	596,174	2,103	1.02	689	2,43	283	3.36
18	Lucerne	00091-13	ensibnl	1,853	30	0	589,034	4,030	1,01	318	2.17	146	0.07
19	Meyersdale North	00022-12	Somerset	1,588	32	0	583,699	4,949	1.00	368	3.12	118	12.68
20	Marland	00149-81	Lewistown	1,315	47	1	573,615	3,419	0.98	436	2,60	168	8.80
21	Hammett	00504-31	Erie	1,389	27	1	560,339	6,043	0.96	403	4.35	93	13.06
22	Honey Grove	00134-83	Shippensburg	450	25	3	550,453	1,756	0.94	1,223	3.90	313	17,61
23	Covington	00729-63	Mansfield	752	50	0	536,837	2,076	0,92	714	2.76	259	0.28
24	Ralphton	00014-12	Somerset	1,643	42	0	517,847	2,718	0.88	315	1.65	191	9.30
25	Marienville	00328-51	Oil City	1,201	37	0	503,145	3,043	0.85	419	2.53	165	12.42
26	Safix	00070-11	Johnstown	2,189	39	2	499,713	10,168	0.85	228	4.65	49	5.87
27	Falls	00297-65	Tunkhannock	831	31	0	488,779	3,199	0.83	588	3.85	153	3.53
28 '	Lenox	00755-65	Montrose	689	24	0	480,985	1,612	0.82	698	2.34	298	3.98

Penelec	-	-						_					
Circuil Rank	Substation	Circuit Desc	District	Average Customers (1)	Outages (2)	Lockouts (3)	Customer Menu±s (4)	Customers Affected (5)	SAEXI Impaca (6)	SAID! (7)	SAIFI (7)	CAIDI (7)	1.6AIF1 (7)
29	Lowell Avenue	00518-31	Erie	968	30	. 2	444,020	3,825	0.76	459	3.95	116	25,52
30	Rolling Meadows	00310-31	Erie	3,052	32	1	443,636	4,750	0.76	145	1.56	93	5.63
31	Соорег	00069-11	Johnstown	685	12	1	436,256	1,642	0.75	637	2.40	266	12.94
32	East Towarda	00525-62	Towanda	617	39	1	425,480	2,572	0.73	690	4,17	165	50,50
33	Carlisle Pike	00643-83	Shippensburg	3,077	27	1	415,099	4,461	0,71	135	1.45	93	6.48
34	Pennmar	00001-12	Somerset	384	19	2	411,900	1,823	0.70	1,073	4.75	226	6.74
35	Union City	00207-43	Согту	844	38	3	399,547	2,309	0.68	473	2.74	173	12.30
36	Eldred	00119-42	Bradford	859	20	2	398,007	2,051	0.68	463	2.39	194	5.59
37	Tunkhannock	00533-65	Tunkhannock	1,242	57	0	392,699	2,595	0,67	316	2.09	151	20.55
38	Philipsburg	00162-22	Philipsburg	3,272	65	0	388,768	1,714	0.66	119	0.52	227	3.66
39	Mansfield	00558-63	Mansfield	740	33	1	362,198	2,515	0,62	489	3.40	144	6.88
40	Saxton	00624-73	Bedford	629	13	o	361,194	530	0.62	574	0.84	681	1.99
41	Lewis Run	00409-42	Bradford	731	26		360,567	1,037	0,62	493	1.42	348	3.52
42	Punxsutawney	00625-23	DuBois	494	11	0	358,905	1,811	0.61	727	3.67	198	19.54
43	Edgewood	00089-13	Indiana	901	32	3	358,193	4,121	. 0.61	398	4.57	87	7.00
44	Tower 51	00051-11	Johnstown	552	8	0	352,650	1,155	0.60	639	2,09	305	9.21
45	Three Springs	00641-82	Huntingdon	53 <b>9</b>	9	1	345,713	690	0.59	641	1.28	501	3.70
46	Shelocts	00102-13	Indiana	1,186	22	0	345,249	3,587	<sub>ij</sub> 0.59	291	3.02	96	4.92
47	Somerset	00030-12	Somerset	2,424	29	0	343,551	2,806	0.59	142	1.16	122	9.52
48	Seward	00075-11	Johnstown	1,034	41	0	339,490	3,528	0.58	328	3.41	96	7.69
49	Fallen Timbers	00693-22	Philipsburg	488	16	1	337,041	1,617	0.58	691	3.31	208	19.50
50	Greenwood	00002-71	Altoona	967	7	0	336,754	1,250	0,58	348	1.29	269	3.59
51	Bradford South	00106-42	Bradford	1,187	30	0	332,635	1,326	0.57	280	1.12	251	1.23
52	Glory	00105-13	Indiana	427	11	1	317,107	1,198	0.54	743	2.81	265	7.88
53	Edinboro	00420-34	Erie ,	1,589	25	2	314,433	4,427	0.54	198	2.79	71	6.29
54	Susquehanna	00279-65	Montrose	622	11	2	309,586	1,455	0.53	498	2.34	213	14.16
55	Wainut Street	00520-31	Ene	1,781	13	0	309,291	4,305	0.53	174	2.42	72	1.35

Penelec.										,		:	6
Circuit Rank	Substation	Circuit Desc	District	Average Customers (1)	Ourages (2)	Lockours (3)	Oustomer Minutes (4)	Customers Affected (5)	SAEH Impact (5)	SAIDI (7)	Saifi (7)	CATN (7)	Maifi (7)
56	Somerset	00016-12	Somerset	1,191	34	1	306,959	2,030	0.52	258	1.70	151	19.73
57	Rockton Mountain	00138-21	Clearfield	487	28	2	303,407	2,521	0.52	623	5.18	120	9.82
58	Thompson	00436-65	Montrose	1,361	65	0	300,152	1,974	0.51	221	1.45	152	12.83
59	Snakespring	00602-73	Bedford	1,506	16	0	298,366	2,990	0.51	198	1.99	100	35.61

- (1) Average number of customers served by the circuit for the 12-month period.
- (2) Number of unique outages experienced by one or more customers on the circuit during the period, due to distribution outage causes.
- (3) Number of circuit lockouts during the period.
- (4) Total customer minutes of outage during the period due to distribution outage causes.
- (5) Number of customer outages during the period due to distribution outage causes.
- (6) Impact of the distribution outages on this circuit to Penn Power's SAIDI.
- (7) Distribution circuit SAIDI, SAIFI, CAIDI and MAIFI 12-Month Rolling due to distribution outage causes.

Met-Ed	•		<u> </u>										
Circuit Rank	Substation	Circuit Desc	District	'Average Customers (1)	Outages (2)	Lockouts (3)	Customer Minutes (4)	Customers Affected (5)	SAEX Impact (6)	SAIDI (7)	SAIFI (7)	CAÐI (7)	MAIFI (7)
1	ALLEN	00503-4	DILLSBURG	2,088	54	2	1,592,810	8,491	2.90	763	4.07	188	15.66
2	SHAWNEE	00822-3	STROUDSBURG	3,565	82	2	1,532,782	14,063	2.80	430	3,94	109	3.31
3	MYERSTOWN	00750-2	LEBANON	1,449	24	2	1,325,757	3,853	2.42	915	2.66	344	0.00
4	SHAWNEE	00895-3	STROUDSBURG	3,874	93	1	1,308,319	8,439	2.39	338	2.18	155	12.85
5	SWATARA HILL	00763-2	LEBANON	1,449	36	3	1,165,373	7,373	2.13	804	5.09	158	1,00
6	ALLEN	00502-4	DILLSBURG	1,031	37	3	1,126,128	3,076	2.05	1,092	2.98	366	21.03
7	CROSSROADS	00728-4	YORK	1,102	63	0	1,106,431	3,498	2.02	1,004	3.17	316	1.99
8	BATH	00873-3	EASTON	2,142	53	2	1,047,010	6,398	1.91	489	2.99	164	14.47
9	SHAWNEE	00860-3	STROUDSBURG	3,253	<b>6</b> 1	3	1,035,659	12,734	1.89	318	3.91	81	10.87
10	NO BANGOR	00826-3	EASTON	3,202	114	0	1,024,294	8,147	1,87	320	2.54	126	1.84
11	WINDSOR	00797-4	YORK	1,613	63	2	983,937	4,787	1.79	610	2.97	206	6.87
12	TOLNA	00793-4	YORK	1,496	50	2	958,779	6,749	1.75	641	4.51	142	1,27
13	NO BANGOR	00813-3	EASTON	1,326	39	0	886,986	3,257	1.62	669	2.45	272	0.99
14	DILLSBURG	00746-4	DILLSBURG	2,328	30	0	840,509	2,732	1.53	361	1.17	308	1.00
15	BERNVILLE	00785-1	HAMBURG	1,829	58	2	825,063	6,285	1.50	451	3.44	131	2.08
16	WINDSOR	00795-4	YORK	966	55	2	797,885	2,439	1.45	826	2.52	327	0.00
17	ORRTANNA	00764-4	GETTYSBURG	1,673	50	2	785,379	5,259	1.43	469	3.14	149	2.00
18	RINGING ROCKS	00708-1	BOYERTOWN	2,203	43	2	703,113	9,907	1.28	319	4.50	71	8.17
19	MOUNTAIN	00743-4	DILLSBURG	1,008	26	1	694,684	2,789	1.27	689	2.77	249	2.05
20	BIRCHWOOD	00624-3	STROUDSBURG	1,863	35	2	691,788	5,415	1.26	371	2.91	128	15.71
21	MOUNTAIN	00742-4	DILLSBURG	1,388	47	1	690,239	2,609	1.26	497	1,88	265	5.37
22	BIRDSBORO	00757-1	READING	1,920	48	2	674,736	5,670	1.23	351	2.95	119	6.46
23	HILL SUB	00737-4	YORK	2,165	39	11	671,668	6,733	1.22	310	3.11	100	5.02
24 ·	STRABAN	00676-4	GETTYSBURG	1,080	53	1	664,162	3,261	1.21	615	3.02	204	2.00
25	YORKANA	00708-4	YORK	2,338	52	2	653,441	5,254	1,19	279	2.25	124	4.49
26	ANNVILLE	00743-2	LEBANON	1,144	34	0	650,173	3,923	1.19	568	3,43	166	0.16
27	LYNNVILLE	00749-1	HAMBURG	806	47	3	637,833	3,586	1,16	791	4.45	178	14.56

Met-Ed													
Circuit Rank	Substation	Circuit Desc	District	Average Customers (1)	Outages (2)	Lockáuts (3)	Customer Minutes (4)	Customers Affected (5)	SAIDI Impact (6)	5AIDI (7)	5AIFI (7)	CAEI	MAIFI (7)
28	BARTO	00705-1	BOYERTOWN	2,081	103	2	612,167	6,291	1.12	294	3.02	97	17.05
29	CLEARFIELD	00631-3	EASTON	1,862	42	2	606,389	5,897	1,11	326	3,17	103	0.00
30	HILL	00735-4	YORK	1,571	56	2	596,758	6,170	1.09	380	3,93	97	8.00
31	TAXVILLE	00575-4	YORK	2,126	45	1	595,393	4,079	1.09	280	1,92	146	8.00
32	S NAZARETH	00809-3	EASTON	2,900	74	2	594,189	6,991	1,08	205	2.41	85	22.23
33	YOE	00559-4	YORK	2,542	32	2	580,613	5,630	1.06	228	2.21	103	17.97
34	SPRINGWOOD	00680-4	YORK	1,541	23	1	580,385	3.604	1.06	377	2.34	161	0.00
35	MOUNTAIN	00744-4	DILLSBURG	1,809	64	0	561,526	1,656	1,02	310	0.92	339	2.36
36	FOX HILL	00816-3	STROUDSBURG	3,745	65	0	517,690	4,510	0.94	138	1.20	115	13.01
37	BERN CHURCH	00789-1	READING	1,429	47	0	514,026	3,257	0,94	360	2.28	158	12.29

- (1) Average number of customers served by the circuit for the 12-month period.
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- (3) Number of circuit lockouts during the period.
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- (6) Impact of the distribution outages on this circuit to Penn Power's SAIDI.
- (7) Distribution circuit SAIDI, SAIFI, CAIDI and MAIFI 12-Month Rolling due to distribution outage causes.

AUG 1 2011

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

ATTACHMENT B

Worst Performing Circuits - Remedial Action

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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	Power					
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 one outage caused by a non-preventable tree	during weather cond	litions.	-
1	Zelienople	D603	Problem tree was removed at time of restoration	Complete	Apr-11	•
			Forestry to trim circuit in 2012	To be completed 2012		
			Performance was driven by two outages caused by a non-preventable tre conditions.	e and lightning during	g weather	
2	Thompson Run	D550	Problem free was removed at time of restoration and lightning damage was repaired at the time of restoration	Complete	Apr-11	
			Forestry to trim circuit in 2011	To be completed 2011		
			Performance was driven by one outage caused by a non-preventable tree	during weather cond	litions.	
3	Ellwood Sw STR	D590	Problem tree was removed at time of restoration	Complete	Apr-11	
			Forestry to trim circuit in 2012	To be completed 2012		
4	Canal	W-102	Performance was driven by one outage caused by a non-preventable tree	s during weather cor	nditions	
	Callal	102	Problem tree was removed at time of restoration	Complete	May-11	
5	Stoneboro	W-131	Performance was driven by one outage caused by lightning during weather	er conditions.		
L	Cionada	10-131	Lightning damage was repaired at the time of restoration	Complete	May-11	
			Performance was driven by one outage caused by a non-preventable tree			
6	Dartington	D-535	Problem tree was removed at time of restoration	Complete	Jun-11	
			Forestry to trim circuit in 2011	To be completed 2011		
			Performance was driven by three outages caused by non-preventable tre	es during weather co	onditions.	
7	Darlington	D-536	Problem tree was removed at time of restoration	Complete	Jun-11	
L			Forestry to trim circuit in 2011	To be completed 2011		

Penn	Power					
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters
8	Perry	W-156	Performance was driven by one outage caused by non-preventable tree d	luring weather condi	tions.	
	reity	14-130	Problem tree was removed at time of restoration	Complete	May-11	
9	Koppel	D-532	Performance was driven by one outage caused by a non-preventable tree	during weather cond	ditions.	
	Коррег	D-332	Problem tree was removed at time of restoration	Complete	Apr-11	
			The performance of this circuit was driven by two outages caused by nor conditions.	-preventable trees d	uring weather	
			Engineering field review of the section of circuit served by a recloser. No additional work identified	Complete	Ju⊦09	
			Engineering field review of the section of circuit served by substation breaker. No additional work identified	Complete	May-09	
			Complete reliability work identified	Complete	Sep-09	10 2010
	Hertstown	W-126	Problem tree was removed at time of restoration	Complete	Dec-09	2Q 2010 3Q 2010
ł	HEISTOWN	VV-120	Problem tree was removed at time of restoration	Complete	Jun-10	4Q 2010
<b>.</b>			Problem tree was removed at time of restoration	Complete	Jul-10	1Q 2011
1		1	Forestry to trim circuit in 2010	Complete	Jun-10	,
			A targeted engineering review was conducted on the circuit and a capital project was developed from the review aimed at improving the reliability of a portion of the circuit, which has been experiencing line and equipment failures, through the replacement	Complete	Feb-11	
1			Problems trees were removed at time of outage	Complete	Mar-11	

Pene	ec					
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 equipment failure and lightning damage durin	g minor storm and h	uman error.	
			Repair lightning damage from minor storm	Complete	Jul-10	
			Repair equipment damage from minor storm	Complete	Feb-11	10 2010 20 2010
1	Springboro	00237-52	Repair equipment damage from minor storm	Complete	Apr-11	30 2010
		5525. 52	Repair damage from tree trimmers	Complete	Jun-11	40 2010
			2011 Circuit Inspection	To be completed 2011		1Q 2011 2Q 2011
		Full Cycle Tree Clearing To be com	Targeted Mainline Reliability Equipment Replacement	To be completed 2011	-	
			To be completed 2011			
		00206-43	Performance was driven by trees non-preventable, equipment failure, unknown and lightning damage during minor storms.		damage	10 2010
_			Reliability Coordinator to inspect circuit based on outage history	Complete	Jan-11	2Q 2010 3Q 2010 4Q 2010
2	Union City		Repair tree damage from minor storm	Complete	Feb-11	
			Repair tree damage from minor storm	Complete	Apr-11	10 2011 20 2011
	<u> </u>		Repair lightning damage	Complete	Jun-11	20 2011
			Performance was driven by trees non-preventable during minor storm.			
			Targeted Mainline Reliability Equipment Replacement	Complete	Jan-10	1Q 2010 2Q 2010
3	Blairsville East	00080-13	Repair tree damage from minor storm	Complete	Apr-11	3Q 2010
			Repair tree damage from minor storm	Complete	Jun-11	40 2010 20 2011
	_		Full Cycle Tree Clearing	To be completed 2011		202011
			Performance was driven by non-preventable tree damage during minor s	torm and equipment	failure.	10 2010
			Repair tree damage from minor storm	Complete	Nov-10	20 2010
4	Warren South	00220-41	Repair tree damage from minor storm	Complete	Apr-11	3Q 2010 4Q 2010
			Repair equipment damage	Complete	Jun-11	10 2011
			Full Cycle Tree Clearing	To be completed 2011		20 2011

Rank         Subatation         Circuit         Remedial Action Planned or Taken         Status of Remedial Work Work Work Work Work Work Work Completed         Appeared in 4 of Gounter's Complete Planned or Taken         Status of Remedial Work Work Work Work Work Work Work Work	Penel	ec	·					
Part	Rank	Substation	Čircuit	Remedial Action Planned or Taken		Remedial Work	Appeared in 4 of 6 Quarters	
Name			Performance was driven by trees non-preventable and line failure during minor storm.					
Performance was driven by non-preventable trees, car-pote accident, equipment failure and customing tree into line.   Age-in tree damage from minor storm   Age-in tree damage from mi				Reliability Coordinator to inspect circuit based on outage history	Complete	Feb-10	1	
Repair tree damage from minor storm	5	DuBais	00137-23	Repair tree damage from minor storm	Complete	Nov-10	30 2010	
Repair lane flature during minor storm   Complete   Apr-11   Apr-11		54563	00137-23	Repair tree damage from minor storm	Complete	Feb-11	1	
Performance was driven by equipment failure and non-preventable trees during minor storms				Repair line fadure during minor storm	Complete	Apr-11		
Repair equipment damage   Complete   Aug-10   30 2010   30 2010   30 2010   30 2010   40 2010				Full Cycle Tree Clearing	Complete	Apr-11		
Repair equipment damage   Complete   Aug-10   30 2010			·	Performance was driven by equipment failure and non-preventable trees	during minor storms	s.		
Repair tree damage from minor storm Full Cycle Tree Clearing  Performance was driven by non-preventable trees, car-pole accident, equipment failure and customer cutting tree into line.  Add additional protection per circuit coordination Repair damage from car-pole accident Repair damage from car-pole accident, equipment failure and non-preventable trees during minor storm Repair damage from minor storm Repair tree damage and equipment failure and non-preventable trees during minor storms. Repair tree damage and equipment failure and non-preventable trees during minor storms.  Repair tree damage and equipment failure and non-preventable trees during minor storms.  Repair tree damage and equipment failure and non-preventable trees during minor storms.	ا ہے ا	Orania	00537.63	Repair equipment damage	Complete	Aug-10		
Full Cycle Tree Clearing Complete May-11 20 2011    Purpose		Grover	00527-63	Repair tree damage from minor storm	Complete	Mar-11		
Birmingham   Birmingham   Birmingham   Birmingham   Add additional protection per circuit coordination   Complete   Aug-10   20 2010	.			Full Cycle Tree Clearing	Complete	May-11		
Repair damage from car-pole accident Complete Jul-10 Review circuit for additional fault indicators Complete Jul-10 Repair equipment failure Complete Feb-11 Targeted Maintine Reliability Equipment Replacement To be completed 2011 Targeted Maintine Reliability Equipment Replacement To be completed 2011 To be completed 2011  Performance was driven by trees non-preventable during minor storm. Repair tree damage from minor storm Complete Feb-11 Repair tree damage from minor storm Complete Apr-11  Performance was driven by equipment failure and non-preventable trees during minor storms. Repair tree damage and equipment failure during minor storm Complete Apr-11  Honey Grove 00135-83  Performance was driven by equipment failure and non-preventable trees during minor storms.								
Repair damage from car-pole accident Complete Jul-10  Review circuit for additional fault indicators Repair equipment failure  Targeted Mainline Reliability Equipment Replacement To be completed 2011  2011 Circuit Inspection  To be completed 2011  2011 Circuit Inspection  Performance was driven by trees non-preventable during minor storm.  Repair tree damage from minor storm  Complete Feb-11  Repair tree damage from minor storm Complete Apr-11  Performance was driven by equipment failure and non-preventable trees during minor storms.  Repair tree damage and equipment failure during minor storm Complete Apr-11  Honey Grove  Performance was driven by equipment failure and non-preventable trees during minor storms.  Performance was driven by equipment failure and non-preventable trees during minor storms.				Add additional protection per circuit coordination	Complete	Aug-10	1	
Birmingham   00168-22   Review circuit for additional fault indicators   Complete   Jul-10   4Q 2010   1Q 2011   2Q 2011   2				Repair damage from car-pole accident	Complete	Jul-10		
Targeted Maintine Reliability Equipment Replacement To be completed 2011  2011 Circuit Inspection To be completed 2011  Performance was driven by trees non-preventable during minor storm. Repair tree damage from minor storm Repair tree damage from minor storm Complete Apr-11  Performance was driven by equipment failure and non-preventable trees during minor storms. Repair tree damage and equipment failure during minor storm Complete Apr-11  Performance was driven by equipment failure and non-preventable trees during minor storms.  Repair tree damage and equipment failure and non-preventable trees during minor storms.  Performance was driven by equipment failure and non-preventable trees during minor storms.	7	Birmingham	00168-22	Review circuit for additional fault indicators	Complete	Jul-10		
Targeted Mainline Reliability Equipment Replacement  To be completed 2011  2011 Circuit Inspection  To be completed 2011  Performance was driven by trees non-preventable during minor storm.  Repair tree damage from minor storm  Complete  Apr-11  Performance was driven by equipment failure and non-preventable trees during minor storms.  Repair tree damage and equipment failure during minor storm  Complete  Apr-11  Honey Grove  O0135-83  Performance was driven by equipment failure and non-preventable trees during minor storms.			ļ	Repair equipment failure	Complete	Feb-11		
B Logan 00700-81 Repair tree damage from minor storm Complete Feb-11 Repair tree damage from minor storm Complete Apr-11  Best Pike 00096-13 Performance was driven by equipment failure and non-preventable trees during minor storms. Repair tree damage and equipment failure during minor storm Complete Apr-11  Honey Grove 00135-83 Performance was driven by equipment failure and non-preventable trees during minor storms.				Targeted Mainline Reliability Equipment Replacement	To be completed 2011		20 2011	
B Logan 00700-81 Repair tree damage from minor storm Complete Feb-11 Repair tree damage from minor storm Complete Apr-11  Beast Pike 00096-13 Performance was driven by equipment failure and non-preventable trees during minor storms.  Repair tree damage and equipment failure during minor storm Complete Apr-11  Honey Grove 00135-83 Performance was driven by equipment failure and non-preventable trees during minor storms.				2011 Circuit Inspection	To be completed 2011	•	1	
Repair tree damage from minor storm  Complete Apr-11  Performance was driven by equipment failure and non-preventable trees during minor storms.  Repair tree damage and equipment failure during minor storm  Complete Apr-11  Honey Grove 00135-83  Performance was driven by equipment failure and non-preventable trees during minor storms.				Performance was driven by trees non-preventable during minor storm.				
Performance was driven by equipment failure and non-preventable trees during minor storms.  Repair tree damage and equipment failure during minor storm  Complete Apr-11  Honey Grove 00135-83 Performance was driven by equipment failure and non-preventable trees during minor storms.	8	Logan	00700-81	Repair tree damage from minor storm	Complete	Feb-11	]	
9 East Pike 00096-13 Repair tree damage and equipment failure during minor storm Complete Apr-11  10 Honey Grove 00135-83 Performance was driven by equipment failure and non-preventable trees during minor storms.				Repair tree damage from minor storm	Complete	Apr-11		
Repair tree damage and equipment failure during minor storm Complete Apr-11  Honey Grove 00135-83 Performance was driven by equipment failure and non-preventable trees during minor storms.	9	East Pike	00096-13	Performance was driven by equipment failure and non-preventable trees	during minor storms	3.		
10 Honey Grove   00135-83			00030-13	Repair tree damage and equipment failure during minor storm	Complete	Apr-11		
	10	Honey Grove	Honey Grove 00135-83					
		Tioney State	33133-03	Repair tree damage and equipment failure during minor storm	Complete	Apr-11	<u></u>	

Penel	ec							
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 equipment failure, unknown outage, non-preventable trees and line failure.				20 2010 30 2010		
11	Blairsville East	airsville East   00082-13	Repair tree damage	Complete	Aug-10	4Q 2010		
		1	Repair equipment damage	Complete	Feb-11	. 10 2011		
			Full Cycle Tree Clearing	Complete	Feb-11	20 2011		
			Performance was driven by equipment failure, trees non-preventable and	unknowns during m	inor storms.	10 2010		
			Repair conditions found by previous reliability inspection	Complete	Jun-10	2Q 2010		
12	Erie South	Erie South 00259-31	Repair equipment damage	Complete	Oct-10	3Q 2010 4Q 2010		
			Reliability Coordinator to inspect circuit based on outage history	Complete	Jan-11	10 2011		
			Repair equipment damage	Complete	Apr-11	20 2011		
13	McVeytown	00112-81	Performance was driven by equipment and line failure during minor storm	rformance was driven by equipment and line failure during minor storm.				
	McVeytown   00112-81	Repair equipment and line failure during minor storm	Complete	Apr-11				
	Performance was driven by trees non-preventable during minor storms.							
			Repair tree damage from minor storm	Complete	Nov-10			
14	Starruca	00744-65	Repair tree damage from minor storm	Complete	Feb-11			
'	Statiuca	00744-05	Repair tree damage from minor storm	Complete	Apr-11			
			2011 Circuit Inspection	To be completed 2011				
			Full Cycle Tree Clearing	To be completed 2011				
			Performance was driven by line failure and trees non-preventable during and a car-pole accident.	minor storm, equipn	nent failure			
			Repair tree damage from minor storm	Complete	Mar-11	ĺ		
15	   Mansfield	  00559-63	Repair damage from car-pole accident	Complete	Apr-11 .			
			Repair equipment damage	Complete	Apr-11	,		
[			Repair line failure	Complete	Jun-11	]		
			2011 Circuit Inspection	To be completed 2011		<b>i</b>		

Pene	lec			<u> </u>			
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 non-preventable and equipment failure.					
			Reliability Coordinator to inspect circuit based on outage history	Complete	Feb-10	10 2010	
			Repair conditions found by previous reliability inspection	Complete	Feb-10	20 2010	
16	Madera	00166-22	Review circuit for additional fault indicators	Complete	May-10	3Q 2010 4Q 2010	
			Add additional protection per circuit coordination	Complete	Aug-10	10 2011	
			Repair tree damage	Complete	Aug-10	2Q 2011	
			Full Cycle Tree Clearing	To be completed 2011			
17	Scalp Level	00932-11	Performance was driven by equipment failure during minor storm.				
		55552-11	Repair equipment damage	Complete	Apr-11		
18	Lucerne	00091-13	Performance was driven by trees non-preventable and equipment failure	during minor storm.			
	Lucerne	30031-13	Repair tree and equipment damage from minor storm	Complete	Apr-11		
			Performance was driven by trees non-preventable during minor storm, line failure and car-pole accident.				<del></del>
			Repair line tailure	Complete	Mar-11		
19	Meyersdale North	0 <b>0</b> 022-12	Repair damage from minor storm	Complete	Mar-11		
			Repair car-pole accident damage	Complete	Apr-11		
			Targeted Mainline Reliability Equipment Replacement	To be completed 2011			
			Performance was driven by lightning during minor storm and equipment	failure.			
20	Maitland	00149-81	Repair equipment damage	Complete	Oct-10		
			Repair lightning damage from minor storm	Complete	Oct-10		
			Performance was driven by trees non-preventable.	<del></del>		<del></del>	
21	Hammett	00504-31	Repair tree damage	Complete	Oct-10		
			2011 Circuit Inspection	To be completed 2011			
22	Heady Course (2013) and Performance was driven by equipment failure and non-preventable trees during minor storms.						
22	Honey Grove	00134-83	Repair tree damage and equipment failure during minor storm	Complete	Apr-11		

Penel	ec	<del></del>					
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 equipment failure during minor storm.	. —			
23	Covington	00729-63	Repair equipment fadure	Complete	Mar-11	1	
		<u> </u>	Repair equipment failure	Complete	Jun-11		
			Performance was driven by non-preventable trees during a minor storm	and equipment failure	<del></del> .	3Q 2010	
24	Ralphton	00014-12	Repair damage from minor storm	Complete	Sep-10	4Q 2010 1Q 2011	
		<u> </u>	Repair equipment damage .	Complete	Mar-11	20 2011	
ne l	25 Marlenville		Performance was driven by trees non-preventable during minor storm.	<u> </u>		2Q 2010 3Q 2010	
25		00328-51	Repair tree damage from minor storm	Complete	Jul-10	40 2010	
		<u> </u>	Repair tree damage from minor storm	Complete	Feb-11	10 2011 20 2011	
	Safox (00:070		Performance was driven by trees non-preventable, vehicle, lightning and line failure.				
				Repair line failure	Complete	Feb-11	20 2010
26		Safec	00070-11	Repair tree damage	Complete	Feb-11	30 2010
			Repair lightning damage	Complete	May-11	4Q 2010 1Q 2011	
		1	Repair damage from car-pole accident	Complete	May-11	2Q 2011	
		<u> </u>	2011 Circuit Inspection	To be completed 2011			
			Performance was driven by trees non-preventable, equipment failure and	d lightning during min	or storm.		
			Repair tree damage from minor storm	Complete	Apr-11		
27	Fells	00297-65	Repair lightning damage during minor storm	Complete	Jun-11		
			Repair equipment failure	Complete	Jun-11		
			2011 Circuit Inspection	To be completed 2011			
		Performance was driven by trees non-preventable during minor storm and vehicle.					
28	Lenox 00	I	Repair damage from car-pole accident	Complete	Oct-10		
		<u> </u>	Repair tree damage from minor storm	Complete	Apr-11		

Penel	ec			• _ • _ • _ • _ •			
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarter's	
		Performance was driven by trees non-preventable, and equipment failure during a minor storm.					
			Repair equipment damage	Complete	Mar-11	1Q 2010 2Q 2010	
29	Lowell Avenue	00518-31	Repair equipment damage	Complete	Apr-11	30 2010	
			Repair tree damage	Complete	Apr-11	1Q 2011 2Q 2011	
			2011 Circuit Inspection	To be completed 2011		202011	
•			Performance was driven by equipment failure during minor storm and lin	e failure.		1Q 2010 2Q 2010	
30	30 Rolling Meadows	00310-31	Repair line faiture	Complete	1.lay-10	3Q 2010 4Q 2010	
	_		Reair equipment faiture during minor storm	Complete	Feb-11	1Q 2010	
		Full Cycle Tree Clearing To be completed 2011		20 2011			
	Cooper 000	Cooper 00069-11	Performance was driven by car-pole accident and line failure.			(i	
31			Repair line failiure	Complete	Oct-10		
31		00003-11	Repaired damage from car-pole accident	Complete	Mar-11	].	
				Reliability Coordinator to inspect circuit based on outage history	Complete	May-11	
			Performance was driven by line failure and lightning during minor storm.	•		5 15 15	
32	East Towanda	00525-62	Repair line faillure	Complete	Dec-10	1	
			Repair lightning damage during minor storm	Complete	Jun-11		
	(		Performance was driven by trees non-preventable during minor storm at	nd equipment failure.			
			Repair failed equipment	Complete	Ju⊦10	3Q 2010 4Q 2010	
33	Carlisle Pike	00643-83	Repair tree damage from minor storm	Complete	Sep-10	10 2011	
			Add additional protection per circuit coordination	Complete	May-11	2Q 2011	
			2011 Circuit Inspection	To be completed 2011	<u> </u>		
34	Pennmar	00001-12	Performance was driven by equipment failure, human error and trees no	n-preventable.			
34	Penniar	00001-12	Repair damage from customer cutting tree into primary	Complete	Nov-10	7 ;	

Penel	ec						
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 non-preventable during minor storm ar	id trees non-prevents	ible.		
35	Union City	00207-43	Repair tree damage	Complete	Sep-10		
		Repair f	Repair tree damage from minor storm	Complete	Apr-11		
Performance was driven by equipment failure.							
36	Eldred	00119-42	Repair failed equipment	Complete	Oct-10		
	2.6.00	001,3-12	2011 Circuit Inspection	To be completed 2011	<u>.</u>		
			Full Cycle Tree Clearing	To be completed 2011			
			Performance was driven by lightning damage and equipment failure durin	g minor storm.		1Q 2010	
37	Tunkhannok	00533-65	Repair equipment damage during minor storm	Complete	Apr-11	2Q 2010 3Q 2010	
			Repair lightning damage from minor storm	Complete	Jun-11	20 2011	
		,		Performance was driven by lightning and trees non-preventable during m	inor storms and equi	pment failure.	<del>-</del>
			Repair lightning damaged insulator	Complete	Aug-10	1Q 2010 2Q 2010	
38	Philipsburg	00162-22	Repair failed equipment	Complete	Jun-11	3Q 2010	
			Targeted Mainline Reliability Equipment Replacement	Complete	May-11	4Q 2010 2Q 2011	
	<del></del>		Add additional protection per circuit coordination	Complete	May-11	20 2011	
			Performance was driven by eqipment failure and line failure.			·	
39	Mansfield	00558-63	Repair equipment/line failure	Complete	Feb-11		
			Repair failed equipment	Complete	May-11		
40 Saxton 00624-73 Performance was driven by vandalism/theft.						<del></del>	
70	SALKUII		Repair damage from vandalism/theft.	Complete	Oct-10		
			Performance was driven by trees non-preventable.				
41	Lewis Run 0	00409-42	Repair tree damage	Complete	May-11		
			2011 Circuit Inspection	To be completed 2011			

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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	
42	Punxsutawnev	00625-23	Performance was driven by trees non-preventable and line failure during	minor storm.			
			Repair tree and line damage during minor storm	Complete	Apr-11		
			Performance was driven by unknown during minor storms, trees non-preventable and line failure.				
43	Edgewood	00089-13	Repair line failure	Complete	Jul-10		
			Repair tree damage	Complete	Sep-10	•	
			Performance was driven by trees non-preventable during minor storm.			2Q 2010 3Q 2010	
44	44 Tower 51	00051-11	Repair tree damage from minor storm	Complete	Apr-11	40 2010	
			2011 Circuit Inspection	To be completed 2011		1Q 2011 2Q 2011	
45	Three Springs	ıs 00641-82	Performance was driven by car-pole accident.				<u></u>
	45 Three Springs			Repair damage from car-pole accident	Complete	Jun-11	
			Performance was driven by car-pole accident, line failure and forced outag	ge due to structure fi	re.		
46	Shelocta	00102-13	Repair damage from car-pole accident	Complete	Aug-10		
		<u></u>	Repair line failure	Complete	Mar-11		
			Performance was driven by equipment failure and car-pole accident.	<u></u>			
47	Somerset	00030-12	Repair equipment damage	Complete	Oct-10		
			Repair damage from car-pole accident	Complete	Jan-11		
			2011 Circuit Inspection	To be completed 2011			
48	Seward	00075-11	Performance was driven by equipment failure and lightning damage durin	g minor storm.			
		/****	Repair equipment failure	Complete	Nov-10	<u>.                                    </u>	
	Performance was driven by trees non-preventable during minor storm and equipment failure.						
49	Fallen Timbers	00693-22	Repair equipment damage	Complete	Sep-10		
			Repair tree damage from minor storm	Complete	Apr-11		

Penel	ec						
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 equipment failure.	•		3Q 2010 4Q 2010	
50	Greenwood		Repair equipment damage	Complete	Jul-10	10 2011 20 2011	
			Performance was driven by trees non-preventable and trees non-prevent	able during minor sto	orm.		
51	Bradford South	00106-42	Repair tree damage from minor storm	Complete	Jul-10		
			Repair tree damage	Repair tree damage	Complete	Jun-11	
			Performance was driven by trees non-preventable during minor storm ar	nd equipment failure.			
52	Glory 0010	00105-13	Repair equipment damage	Complete	Sep-10		
	- <u></u> -	<u> </u>	Repair tree damage from minor storm	Complete	Mar-11		
			Performance was driven by equipment failure and an unknown.				
53	Edinboro	00420-34	Repair equipment damage	Complete	Feb-11		
		<u> </u>	Repair equipment damage	Complete	Jun-11		
			Performance was driven by trees non-preventable during minor storm ar	nd car-pole accident.			
54	Susquehanna	00279-65	Repair equipment damage during minor storm.	Complete	Sep-10	1	
			Repair damage from car-pole accident	Complete	Nov-10		
	•		Performance was driven by equipment failure and an unknown cause.				
55	Walnut Street	00520-31	Repair equipment failure	Complete	Mar-11		
		<u> </u>	Repair equipment failure	Complete	Apr-11		
		Performance was driven by line failure, vehicle damage and equipment failure during minor storm.		orm.			
56	Somerset	00016-12	Repair line failure	Complete	Jul-10		
	<u></u>		Repair damage due to cer-pole accident	Complete	Jul-10		

Penel	ec						
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 equipment failure and line failure.	,			
57	Rockton Mountain	00138-21	Repair line failure	Complete	Jul-10		
			Repair equipment failure	Complete	Feb-11		
			Targeted Mainline Reliability Equipment Replacement	Complete	Jun-11		
			Performance was driven by trees non-preventable during minor storm an	d an unknown cause	•		
58	Thompson	00436-65	Repair tree damage during minor storm	Complete	Jul-10		
			Full Cycle Tree Clearing	To be completed 2011			
	_	Performance was driven by forced outage due to a struct		Performance was driven by forced outage due to a structure fire and equi	pment failure.		
59	Snakespring	00602-73	Repair equipment failure	Complete	Apr-11		
			2011 Circuit Inspection	To be completed 2011			
	_	Performance was driven by car-pole accident, equipment failure and equipment failure during minor storm.					
			Repair damage from car-pole accident	Complete	Feb-10	10 2010	
			Repaired damage from minor storm.	Complete	Apr-10	2Q 2010	
	Curryville	00 <del>644-</del> 71	Review circuit for additional fault indicators	Complete	Oct-10	3Q 2010	
			Targeted Mainline Reliability Equipment Replacement	Complete	Oct-10	4Q 2010	
			Full Cycle Tree Clearing	To be completed 2011			
			Performance was driven by equipment failure and trees non-preventable	during minor storm.		_	
			Reliability Coordinator to inspect circuit based on outage history	Complete	Feb-10		
			Repair Conditions found by previous reliability inspection	Complete	Feb-10		
1	D P.4		Repaired damage from minor storm	Complete	Mar-10	1Q 2010 2Q 2010	
	Powell Ave	00237-31	Repaired equipment failure - UG terminator	Complete	Jul-10	3Q 2010	
]			Review circuit for additional fault indicators	Complete	Aug-10	4Q 2010	
	1		2011 Circuit Inspection	To be completed 2011			
<u>'</u>			Full Cycle Tree Clearing	To be completed 2011			

Penel	ec					
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remediai Work Completed	Appeared in 4 of 6 Quarters
			Performance was driven by trees non-preventable during minor storm as	nd equipment failure.		
			Repair failed equipment	Complete	Ju⊦10	
	Carliste Pike	00643-83	Repair damage from minor storm	Complete	Sep-10	
			Add additional protection per circuit coordination	Complete	May-01	
			2011 Circuit Inspection	To be completed 2011		1
			Performance was driven by vehicle damage and line failure.		-	
	Port Allegany Sub	00151-42	Repair damage from vehicle	Complete	Dec-10	]
			2011 Circuit Inspection	To be completed 2011		] .
			Performance was driven by trees non-preventable and wind damage duri	ing a minor storm.		2Q 2010 3Q 2010
	Milloreek 00055-	00055-11	Repair damage from minor storm	Complete	Apr-10	4Q 2010
			2011 Circuit Inspection	To be completed 2011		10 2011
			Performance was driven by trees non-preventable and equipment failure	during a minor storn	٦.	20 2010
	Hilliop	00040-11	Repair damage from minor storm	Complete	Apr-10	3Q 2010
	,,,,,,,	30040-11	Repair damage from minor storm	Complete	Jun-10	40 2010
			2011 Circuit Inspection	To be completed 2011		10 2011
	_		Performance was driven by wind damage during a minor storm and trees	s non-preventable.		20 2010
	Scalp Level	00031-11	Repair minor storm damage	Complete	Apr-10	3Q 2010 4Q 2010
			2011 Circuit Inspection	To be completed 2011		10 2011
_			Performance was driven by wind damage during minor storm.			20 2010
	Curryville	00610-71	Repair damage from minor storm	Complete	Apr-10	3Q 2010
	out y tino	550   5-1	Review circuit for additional fault indicators	Complete	Apr-11	40 2010
			Full Cycle Tree Clearing	To be completed 2011		10 2011

Репе	lec			•		
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 lightning damage during minor storm.				1Q 2010 2Q 2010
	Tionesta Switching Station	00498-51	Repair Damage from minor storm	Complete	Jun-10	3Q 2010
	Switching Station		Review circuit for additional fault indicators	Complete	Aug-10	4Q 2010
		Full Cycle Tree Clearing	Full Cycle Tree Clearing	To be completed 2011		10 2011
			Performance was driven by equipment failure, trees non-preventable and storm.	d equipment failure du	iring minor	10 2010
			Repair damage from minor storm	Complete	May-10	20 2010 30 2010 40 2010
	Green Garden	00224-31	Add additional protection per circuit coordination	Complete	Oct-10	
			2011 Circuit Inspection	To be completed 2011		1Q 2011
			Full Cycle Tree Clearing	To be completed 2011		•
			Performance was driven by non-preventable trees and line failure during minor storm.			
		İ	Repair damage from minor storm	Complete	May-10	20 2010
	St Benedict	00057-72	Repair damage from minor storm	Complete	Jun-10	3Q 2010 4Q 2010
		2011 Circuit Inspection	2011 Circuit Inspection	To be completed 2011		10 2011
<u> </u>			Targeted Mainline Reliability Equipment Replacement	To be completed 2011		1
		Performance was driven by trees non-preventable during minor storm and line failure.				
	Hooversville	00019-12	Repair damage during minor storm	Complete	Sep-10	1
			Repair damage during minor storm	Complete	Oct-10	]
		ļ	Full Cycle Tree Clearing	To be completed 2011		1

Met-E	d			,		
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 as cause at 53% of minutes an lightning circuit minutes from lightning and trees in the 6/12/10, 6/24/10 and 9/22/10 s		utes. 73% of	
			Replaced 1 pole, 1 crossarm, and repaired one misc item identified during patrols	Complete	Арг-10	
			Perform accelerated circuit reliability assessment of three phase - No Priority 1 Findings	Complete	Apr-10	
			Perform accelerated circuit reliability assessment of mainline - No Priority 1 Findings	Complete	Арг-10	
			Perform accelerated circuit reliability assessment of three phase - No Priority 1 Findings	Complete	Jun-10	
		ł	Perform accelerated circuit reliability assessment of mainline - No Priority 1 Findings	Complete	Jun-10	
			Replace recloser destroyed by lightning in June 12 storm	Complete	Jul-10	2Q 2010
1 1	Allen	00503-4	Forestry perform off cycle trim	Complete	Jul-10_	3Q 2010
			Perform accelerated circuit reliability assessment of three phase - No Priority 1 Findings	Complete	Oct-10	4Q 2010 1Q 2011
			Perform accelerated circuit reliability assessment of mainline - No Priority 1 Findings	Complete	Oct-10	
		1	Replaced 1 crossarm and 1 other item identified during patrols	Complete	Nov-10	
			Perform SAIFI analysis initiative study	Complete	Jan-11	
			Engineering and Forestry Perform mainline vegetation assessment	Complete	Jan-11	
			Perform accelerated circuit reliability assessment of three phase - No Priority 1 Findings	Complete	Mar-11	
i '			Perform accelerated circuit reliability assessment of mainline - No Priority 1 Findings	Complete	Мат-11	Į.
i			Installed new singe phase trip and lockout recloser identified in SAIFI Analysis	Complete	Apr-11	
		<u> </u>	Forestry to perform on cycle comprehensive circuit Tree Trim in 2011	To be completed in 2011		
			Performance driven by line failure, equipment failure and non-preventable line failure during storm restoration on 11/18/10 while back feeding other		ninutes due to	
			Perform accelerated backbone assessment	Complete	Jan-10	40.7040
]			Perform accelerated three phase assessment	Complete	Jan-10	1Q 2010 2Q 2010
] _		l	Install fault Indicators	Complete	Apr-10	3Q 2010
2	Shawnee	00822-3	Perform accelerated single phase assessment	Complete	Jun-10	4Q 2010
			Perform SAIFI analysis initiative study	Complete	Jan-11	10 2011
			Perform accelerated backbone and three phase assessment	Completé	Mar-11	20 2011
			Install Fault Indicators	To be completed in 2011		
			Replace current limiting fuses on step transformers	To be completed in 2011		
Ļ	<u> </u>		Repair critical items identified from circuit patrol	To be completed in 2011		

Met-E	d						
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 non-preventable (86%) 5 large outages occurred during a small storm June 25, 2010, additional Large tree caused outage on 10/5/10, and five lengthy outages during the Feb. 2, 2011 Storm, additionally there were two car-pole accidents.					
			Perform accelerated backbone assessment	Complete	Mar-10	20 2010	
	<b>.</b>		Perform accelerated three phase assessment	Complete	Mar-10	30 2010	
3	Birdsboro	00757-1	Comprehensive Tree Trimming	Complete	Ju⊢10	4Q 2010	
		ì	Upgrade T-12 Tie Recloser	Complete	Oct-10	10 2011	
		•	Install mainline fault indicators 3 locations	Complete	Jan-11	Ĭ	
			Perform accelerated three phase assessment	To be completed in 2011			
			Perform accelerated backbone assessment	To be completed in 2011			
				Performance driven by tree as cause at 93% of circuit minutes, 63% of min storm. Performaccelerated circuit reliability assessment of three phase	utes from trees during Complete	Apr-10	
			Perform accelerated circuit reliability assessment of mainline	Complete	Apr-10	20 2010	
4	Allen	00502-4	Replaced 2 crossarms and 1 other item identified during Line patrol	Complete	May-10	3Q 2010	
·			Perform accelerated circuit reliability assessment of three phase - No Priority 1 Findi	Complete	Oct-10	40 2010	
1			Perform accelerated circuit reliability assessment of mainline - No Priority 1 Findings	Complete	Oct-10	1Q 2011	
			Install fault indicators 4 locations	Complete	Nov-11		
		1	Perform accelerated backbone assessment	To be completed in 2011			
			Forestry to perform on cycle comprehensive circuit Tree Trim in 2011	To be completed in 2011			
			Performance was primarily driven by tree caused outages to shared trans (72%), and dropping the substransmission feed to the sub to prevent ove		on poles		
			3 Phase assessment of circuit	Complete	Aug-10	<u> </u>	
5	Myerstown	00750-2	Repair ridge pin on 3 phase backbone	Complete	Nov-10	1	
1 -	mycratown		Replace crossarm on 3 phase backbone	Complete	Nov-10	]	
			Perform accelerated backbone assessment	Complete	Mar-11	1	
			Install Fault Indicators 15 locations	Complete	Feb-11	1	
		<u> </u>	Extend 3 phase, balance load and add fusing to northern portion of circuit	To be completed in 2011			

Met-E	d					_
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 non-preventable tree cause outages (89% of minu	tes).		
			Perform accelerated assessment on the circuit backbone and 3 phase of the circuit after a wind storm	Complete	Oct-10	
, ,			Repair critical items identified from backbone assessment	Complete	Oct-10	
6	Crossroads	00728-4	Forestry to perform assessment of 3 phase cross-country R/W	Complete	Nov-10	
ĺĺ		Ì	Forestry to remove critical trees identified from cross-country assessment	Complete	110v-10	
		,	Perform accelerated backbone assessment	Complete	Mar-11	
			Forestry to perform on cycle comprehensive circuit Tree Trimming	To be completed in 2011		
			Repair high priority items identified from circuit assessment	To be completed in 2011		
		<u> </u>	Install additional Fault Indicators	To be completed in 2011		
			Performance driven by tree as cause at 94% of minutes, 14% of circuit min and 70% of circuit minutes by trees in the 9/22/10 storm.	nutes by trees in the 4/1	6/10 storm	
		1	Replace 3 insulators and 1 misc item found during Line patrol	Complete	<u>Jan-10</u>	
			Perform accelerated circuit reliability assessment of three phase- No Priority 1 findings	Complete	Apr-10	1Q 2010 2Q 2010
7	Dillaburg	00746-4	Perform accelerated circuit reliability assessment of mainline- No Priority 1 findings	Complete	Apr-10	30 2010
l			Forestry to perform on cycle comprehensive circuit Tree Trim in 2010	Complete	Dec-10	4Q 2010
]		j	Perform SAIFI analysis initiative study	Complete	Jan-11	10 2011
			Engineering and Forestry Perform mainline vegetation assessment	Complete	Jan-11	20 2011
			Perform accelerated circuit reliability assessment of three phase - No Priority 1 Findings	Complete	Mar-11	
	<u> </u>	<u> </u>	Perform accelerated backbone assessment	Complete	Mar-11	
			Performance was primarily driven by vehicle accidents (40%), forced outs and Equipment Failures (26%).	ges to ensure public sa	fety (13%),	
[ [			Accelerated circuit assessment 3 phase	Complete	Feb-10	] '
		,	Spot Trimming along Ridge Road	Complete	Dec-10	
8	Swatara Hill	00763-2	Replace Underground Cable along Bassler Drive, Rhodes Drive, Chestnut Rd and Koch Ln	Complete	Dec-10	
			Replace recloser along Steinruck Road	Complete	Jan-11	1
			Correct 3 coordination issues	Complete	Mar-11	1
}			Perform accelerated backbone assessment	To be completed in 2011		1
			Install additional disconnect switches	To be completed in 2011		
			Install fault indicators 4 locations	To be completed in 2011		}

Met-E	d						
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 non-preventable (93%) 3 large outages occu	rred during a small stor	m June 24 to		
			25, 2010, add't tree caused outage on Sept. 30, 2010, and two add't tree out	age occurred on Feb 2n	d and 5th		
			2011(Ice Storm).	<del></del>			
			Forestry to perform on cycle comprehensive circuit Tree Trimming	Complete	Ju⊦10		
			Upgrade T-12 Tie Recloser	Complete	Oct-10	10, 2010	
		ļ	Install Fault Indicators 1 add'l Mainline Location	Complete	Nov-10	2Q 2010 3Q 2010	
9	Birdsboro	00756-1	Perform SAIFI analysis initiative study	Complete	Jan-11	4Q 2010	
			Replace Mainline Tie-Switch (tree damaged)	Complete	Feb-11	10 2011	
			Perform accelerated backbone assessment	Complete	Mar-11	20 2011	
				Perform accelerated three phase assessment	Complete	Mar-11	
					Install Single Phase Electronic Sectionalizer	To be completed in 2011	
			Repair high priority items identified during circuit assessment	To be completed in 2011			
			Forestry to perform off cycle patrol and trim	To be completed in 2011			
	-		Performance was driven by equipment failure, non-preventable trees, an	d vehicle accidents.			
			Study Additional Backbone Protection	Complete	Aug-09		
			Perform accelerated backbone assessment	Complete	Mar-10		
			Perform accelerated three phase assessment	Complete	Mar-10	1	
			Perform accelerated single phase assessment	Complete	Sep-10	20 2010	
40	F 1177	00040 0	Perform SAIFI analysis initiative study	Complete	Jan-11	30 2010	
10	Fox Hill	00816-3	Perform accelerated backbone and three phase assessment	Complete	Mar-11	4Q 2010	
		1	Correct fuse miscoordinations identified during SAIFI analysis	To be completed in 2011		10 2011	
			Install Fault indicators	To be completed in 2011		1	
			Study automation of sectionalizer on circuit	To be completed in 2011		1	
			Replace current limiting fuses on step transformers	To be completed in 2011			
			Forestry to perform off cycle patrol and trim	To be completed in 2011			
		İ	Performance was driven by non-preventable trees and equipment failure	<del></del>		<u> </u>	
			Perform accelerated three phase and backbone assessment	Complete	Jan-10	1	
			Install Fault Indicators	Complete	Apr-10	1	
11	Shawnee	00895-3	Perform SAIFI analysis initiative study	Complete	Јап-11	1	
		]	Perform accelerated three phase and backbone assessment	Complete	Mar-11		
		1	Replace current limiting fuses on step transformers	To be completed in 2011	*******	1	
			Operate and maintain circuit tie switches	To be completed in 2011	1		

Met-E	d			•			
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 and equipment failure	e			
			Perform accelerated backbone assessment	Complete	Mar-10		
			Perform accelerated three phase assessment	Complete	Mar-10		
			Forestry to perform on cycle comprehensive circuit Tree Trimming	Complete	Jun-10	10 2010 20 2010	
12	No Bangor	00826-3	Perform SAIFI analysis initiative study	Complete	Jan-11	20 2010 30 2010	
			Perform accelerated backbone and three phase assessment	Complete	Feb-11	4Q 2010	
			Perform in depth inspection of backbone fuses	Complete	Apr-11	1Q 2011	
		'	Operate and maintain circuit tie switches	To be completed in 2011	·	·	
				Replace current limiting fuses on step transformers	To be completed in 2011		
			Install new electronic recloser	To be completed in 2011			
				Performance was driven by non-preventable trees, equipment failure, as	d vehicle accidents.	<del></del>	
			Perform accelerated three phase assessment	Complete	Jan-10		
			Forestry to perform on cycle comprehensive circuit Tree Trimming	Complete	Mar-10		
[			Perform accelerated backbone assessment	Complete	Jul-10		
			Perform accelerated single phase assessment	Complete	Sep-10		
		1	Repair critical items identified from circuit patrol	Complete	Sep-10		
13	Bath	Bath 00873-3	Install additional backbone fusing and faulted circuit indicators	Complete	Dec-10		
l			Perform SAIFI analysis initiative study	Complete	Jen-11		
			Perform accelerated backbone and three phase assessment	Complete	Mar-11	]	
			Correct fuse miscoordinations identified during SAIFI analysis	To be completed in 2011			
ļ			Replace current limiting fuses on step transformers	To be completed in 2011			
			Install new electronic recloser	To be completed in 2011			
			Install remote control on Bath substation recloser	To be completed in 2011	•		
			Performance driven by non-preventable trees, equipment failure, and ve	hicle accidents.			
·		1	Perform accelerated backbone assessment	Complete	Apr-10	1	
14	No Bengor	00813-3	Perform accelerated three phase assessment	Complete	Арг-10	1	
'7	140 Daliyul	00013-3	Perform accelerated backbone and three phase assessment	Complete	Apr-11	1	
			Perform in depth inspection of backbone fuses	Complete	Apr-11	1	
			Forestry to perform on cycle comprehensive circuit Tree Trimming	To be completed in 2011		]	

Met-E	d						
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 August 2010 mainline vehicle pole contacts as cause at 52% of circuit minutes and a crimp failure on 12/12/10 at 15% of circuit minutes.					
' '	l	1	Replaced 2 poles, 2 crossarms, 15 insulators and 3 cutouts found during line patrol	Complete	Jan-10		
			Install animal guard 3 locations	Complete	Jun-10		
15	Oritanna	00764-4	Perform accelerated circuit reliability assessment of three phase	Complete	Sep-10		
			Perform accelerated circuit reliability assessment of mainline	Complete	Sep-10		
			Perform accelerated backbone assessment	To be completed in 2011			
			Forestry to perform on cycle comprehensive circuit Tree Trim in 2011	To be completed in 2011			
			Performance was primarily driven by tree caused outages (27%) and wind	l damage (50%).			
	Annville		Accelerated circuit assessment 3 phase	Complete	May-10		
			Post storm assessment due to excessive damage	Complete	Jun-10	20 2010	
16		00742-2	Install GOAB to sectionalize	Complete	Sep-10	3Q 2010	
			Perform accelerated backbone assessment	Complete	Mar-11	4Q 2010 1Q 2011	
			Install Fault Indicators on 3 phase 6 locations	To be completed in 2011		10 2011	
		1	Comprehensive Tree Trimming	To be completed in 2011			
	· <u> </u>		nage done by the June 2	24, 2010 wind			
			Install New Recloser and remove existing recloser	Complete	Aug-10	1	
			Accelerated circuit assessment 3 phase	Complete	Aug-10	2Q 2010	
	0		Replace insulator on 3 phase backbone	Complete	Aug-10	3Q 2010	
17	Grantville	00721-2	Replace blown arrestor on 3 phase backbone	Complete	Nov-10	4Q 2010	
		!	Replace falling crossarm on 3 phase backbone	To be completed in 2011		10 2011	
			Perform accelerated backbone assessment	To be completed in 2011	]		
			Replace insulator on 3 phase backbone	To be completed in 2011			
	_		Correct 4 coordination issues	To be completed in 2012			
			Performance was primarily driven by equipment failures (41%), tree dame	age (24%) and conducto	r failure (13%).		
	٠-		Accelerated circuit assessment 3 phase	Complete	Jun-10		
			Install Mainline 3 phase switch	Complete	Sep-10	20 2010	
18	North Cornwall	00610-2	Replace solids with fuses and move 4 spans upstream	Complete	Sep-10	30 2010 40 2010	
			Replace arrestors 2 locations on 3 phase backbone	Complete	Mar-11	10 2011	
			Perform accelerated backbone assessment	To be completed in 2011		]	
l		l	Farestry to perform off cycle patrol and trim	To be completed in 2011	]	)	

Met-E	ď						
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 non-preventable tree cause outages (93% of minute	tes).			
			Perform Accelerated backbone and three phase assessment	Complete	May-10		
			Install additional Fault indicators	Complete	Feb-11		
		ļ	Forestry to perform spot assessment of tree prone outage area	Complete	Mar-11		
19	9 Hilli	00737-4	Forestry to perform follow-up tree work as result of spot assessment	Complete	Mar-11		
			Install sectionalizer	To be completed in 2011			
į			Install an additional recloser to protect the circuit 3 phase	To be completed in 2011			
			Perform accelerated backbone assessment	To be completed in 2011		į	
				Forestry to perform on cycle comprehensive circuit Tree Trimming	To be completed in 2012		
			Performance driven by a wind storm which were non-preventable tree ca	use outages (43% of mi	inutes).		
			Perform Accelerated circuit three phase backbone assessment after wind storm	Complete	Feb-10		
			Perform accelerated assessment on the circuit backbone and 3 phase of the circuit			10 2010	
		İ	after a major hail storm	Complete	May-10	2Q 2010	
20	Yorkana	00708-4	Perform thermal scan of the circuit three phase backbone	Complete	Aug-10	3Q 2010	
			Repair critical items identified from backbone assessment after wind storm	Complete	Dec-10	4Q 2010	
			Perform SAIFI analysis initiative study	Complete	Jan-11	10 2011	
			Perform accelerated backbone assessment	Complete	Feb-11		
		l,	Replaced damaged recloser found during repair of hot spot identified from thermat				
_		<del> </del>	SCAN	Complete	Mar-11		
			Performance driven by insulator equipment failure (fuses and CLF's) and		and animals.		
		ļ	Perform accelerated three phase assessment	Complete	Jan-10	,	
			Repair items identified from three phase assessment	Complete	Feb-10		
		1	Install radio control communication equipment on sectionalizer	Complete	Ju⊢10	20 2010	
21	Shawnee	00860-3	Perform fuse and coordination study	Complete	Sep-10	30 2010	
i			Perform accelerated backbone and three phase assessment	Complete	<u>Mar-11</u>	40 2010	
			Install Fault Indicators	To be completed in 2011		10 2011	
			Replace current limiting fuses on step transformers	To be completed in 2011		1	
			Operate and maintain circuit tie switches	To be completed in 2011			
		<u></u>	Repair critical items identified from circuit patrol	To be completed in 2011			

Met-E	d			-		
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 non-preventable (80%) 4 large outages occu 25, 2010, 2 add'l tree outages on May 8th and 12th 2010, 5 lengthy outages large UG outage on 2-22-11.	_		
	22 Shina Hita	}	Perform accelerated backbone assessment	Complete	Apr-10	2Q 2010
			Perform accelerated three phase assessment	Complete	Apr-10	30 2010
22	Flying Hills	00777-1	Perform accelerated backbone assessment	Complete	Feb-11	40 2010
		]	Perform accelerated three phase assessment	Complete	Feb-11	10 2011
		,	Install Fault Indicators 9 Locations	To be completed in 2011		
			Forestry to perform off cycle patrol and trim	To be completed in 2011		
			Forestry to perform on cycle comprehensive circuit Tree Trim in 2012	To be completed in 2012		
			Circuit performance was driven by non-preventable tree cause outages (	59% of minutes)		
			Perform accelerated backbone and three phase assessment	Complete	Aug-10	1
22	Taka	00793-4	Perform accelerated assessment on the circuit backbone and 3 phase of the circuit after a wind storm	Complete	Oct-10	
23	Toha		Repair 2 condition items identified during Circuit assessment	Complete	Feb-11	
			Perform accelerated backbone assessment	Complete	Feb-11	
			Forestry to perform on cycle comprehensive circuit Tree Trimming	To be completed in 2011		
			Install two reclosers to protect the circuit backbone.	To be completed in 2011		
			Performance driven by trees non preventable (82%), during two small sto 13-14, 2010), July 19th, 2010, Dec 8th, 2010, and the Feb 2, 2011 ice storm, Airbreaker failure.	so (10%) were derived f	rom circuit	
		!	Perform Fault Current Indicator Installation Engineering Study	Complete	Mar-10	ł
		ļ	Install Fault Current Indicators at seven locations	Complete	May-10	
			Perform SAIFI analysis initiative study	Complete	Jan-11	10 2010
24	8arto	00705-1	Replace overloaded fuse with a single phase recloser, upgrade a fuse downstream of this location/ install fault indicators	Complete	Mar-11	2Q 2010 3Q 2010
			Install Fault indicators on a heavily wooded section downstream of the new single phase recloser as 3 locations	Complete	Mar-11	4Q 2010 1Q 2011
			Perform accelerated backbone assessment	Complete	Mar-11	
			Perform accelerated three phase assessment	Complete	Mar-11	
		1	Install 2 additional New mainline 3 phase reclosers	To be completed in 2011	1	
		1	Install additional fusing 3 single phase locations	To be completed in 2011		
			Forestry to perform off cycle patrol and trim	To be completed in 2011		

Met-E	d					
Řank	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 tree caused outages (26%), wind damage (48.5%), UG cable fa (11.5%)				
			Replace UG cable along Gentry Drive	Complete	Jan-10	
			Accelerated circuit assessment 3 phase	Complete	May-10	1Q 2010
			Post storm assessment due to excessive damage	Complete	Jun-10	2Q 2010
25	25 Campbelltown	00731-2	Forestry to perform mid-cycle assessment of remaining 3-phase	Complete	Sep-10	3Q 2010
			Perform accelerated backbone assessment	Complete	Mar-11	4Q 2010
1			Perform SAIFI analysis initiative study	Complete	Feb-11	10 2011
			Install Fault Indicators on 3 phase 6 locations	To be completed in 2011		
			Trim locations identified in forestry review	To be completed in 2011		
			Repair high priority items identified during circuit assessment	To be completed in 2012		
			Performance driven by the June 4 windstorm as cause at 79% of circuit mi of circuit minutes from trees as cause during 7/19/10 storms.	inutes, which felled 7 p	oles; and 16%	
			Perform accelerated circuit reliability assessment of three phase - No Priority 1 Findings	Complete	Jul-10	
26	N Hanover	nover 00514-4	Perform accelerated circuit reliability assessment of mainline - No Priority 1 Findings	Complete	Jul-10	
		}	Replace 1 chipped cutout found during Line patrol	Complete	Mar-10	
i			Forestry perform off cycle three phase vegetative patrol	Complete	Jan-11	
			Perform accelerated backbone assessment	To be completed in 2011		
			Forestry to perform on cycle comprehensive circuit Tree Trim in 2012	To be completed in 2012		-
	<u> </u>		Performance driven by trees non preventable (60%) and Equipment Proble	ems (37%).		
;		!	Perform accelerated backbone assessment.	Complete	Mar-10	
			Perform accelerated three phase assessment,	Complete	Mar-10	1
27	Ringing Rocks	00708-1	Install Mainline Fault Finders 4 Locations	Complete	Sep-10	
			install add'l fusing 2 locations	Complete	Nov-10	]
			Perform accelerated backbone assessment.	To be completed in 2011		]
			Perform accelerated three phase assessment.	To be completed in 2011		
28	Birchwood	00624-3	Performance was driven by line failure, and non-preventable trees. 57% of during storm on 12/27/10, and cold load pickup during restoration.	of circuit minutes due to	line failure	
-	310000	5502,1-5	Perform accelerated backbone assessment	To be completed in 2011		
			Study phase balancing to relieve unbalance during cold load pickup	To be completed in 2011		L

Met-E	d						
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 non-preventable tree cause outages (66% of minut	les).	_		
			Perform accelerated assessment on the circuit backbone and 3 phase of the circuit	Complete	Feb-10	]	
			Forestry to perform on cycle comprehensive circuit Tree Trimming	Complete	Mar-10		
			Perform accelerated assessment on the circuit backbone, 3 phases of the circuit and a portion of the single phase	Complete	Jun-10	1Q 2010 2Q 2010	
29	Newberry	00576-4	Perform accelerated circuit single phase assessment	Complete	Ju⊦ <u>10</u>	30 2010	
			Perform accelerated assessment on the circuit backbone and 3 phase of the circuit after a wind storm	Complete	Oct-19	4Q 2010 1Q 2011	
			Install additional Fault Indicators on the circuit	Complete	Nov-10	_	
] ]			Perform accelerated backbone assessment	Complete	Mar-11		
			Install three radio controlled switches and recloser with fault indicators	To be completed in 2011			
	_		Performance driven by (2) equipment problems (1st cutout, 2nd line recto pole accident, lightning and tree caused outages(11%).	ser), 2-line problems, a	nimal, car-		
			Install Fault Indicators at existing main-line Switch	Complete	Feb-10	1	
		00786-1	Perform accelerated backbone assessment	Complete	Mar-10	_	
30	Bernville		Perform accelerated three phase assessment	Complete	Mar-10		
			Replace 1 mainline 3 phase recloser and move it to a more effective location	To be completed in 2011		į	
				Install 1 Additional New Mainline 3 phase recloser	To be completed in 2011		
		i	Install 3PH mainline fault indicators 2 locations	To be completed in 2011			
<u> </u>			Perform accelerated backbone assessment	To be completed in 2011			
			Performance driven by CPA(3-23-11), animal caused outage, UG Problems	·	<del>- ` · · · · </del>	_	
			Install OH Fault indicators at two locations	Complete	Mar-10		
			Guy Wire Repairs at three locations	To be completed in 2011			
31	Bern Church	00789-1	Perform accelerated backbone assessment.	To be completed in 2011			
i l			Perform accelerated three phase assessment.	To be completed in 2011			
			install OH Fault indicators at a three phase sectionalizing location.	To be completed in 2011			
		<u> </u>	Forestry to perform on cycle comprehensive circuit Tree Trimming	To be completed in 2011			
			Performance driven by trees at 47% of circuit minutes; in the 9/22/10 storn animal contact in a three phase bank on 10/17/10 for 22% of circuit minutes		es and an		
32	Straban	00676-4	Perform normal circuit reliability assessment of mainline	Complete	Jul-10	1	
	004000	300,04	Perform normal circuit reliability assessment of three phase	Complete	Jul-10	1	
			Replaced 1 crossarm	Complete	Mar-10	1	
		<u> </u>	Perform accelerated backbone assessment	To be completed in 2011		<u> </u>	

Met-E	d			•		
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 non-preventable tree cause outages (90% of minut	tes).		
			Perform Accelerated backbone and three phase assessment	Complete	Мву-10	
33	нл	00735-4	Forestry to perform spot assessment of tree prone outage area	Complete	Mar-11	
33	Lill	00735-4	Install additional Fault indicators	To be completed in 2011		
			Perform accelerated backbone assessment	To be completed in 2011		
			install an additional recloser to protect the circuit 3 phase	To be completed in 2012		
		]	Forestry to perform on cycle comprehensive circuit Tree Trimming	To be completed in 2012		
			Performance driven by non-preventable tree cause outages (12% of minuminutes).	tes) and equipment pro	blems (84% of	
			Perform Accelerated assessment on the circuit backbone including all three and	0 - 14		
			single phases of the circuit after a major hail storm.  Perform accelerated circuit three phase backbone assessment and record the	Complete	_May-10	10 2010
34	Yorkana	00715-4	locations of all splices	Complete	Jul-10	20 2010
34	TORANA	00715-4	Install three radio controlled switches with fault indicators	Complete	Aug-10	3Q 2010 4Q 2010
			Perform thermal scan of all splices on the circuit three phase backbone	Complete	Aug-10	10 2011
			Perform SAIFI analysis initiative study	Complete	Jan-11	10.2011
			Perform accelerated backbone assessment	Complete	Feb-11	
		i	Forestry to perform off cycle patrol and trim	Complete	Mar-11	
		<del> </del>	Performance was driven by non-preventable trees, equipment failure and	<u> </u>	Mul-11	<del>                                     </del>
35	No Bangor	00838-3	Perform accelerated assessment on the circuit backbone and 3phase of the circuit	Complete	Feb-11	ł
	-		Forestry to perform on cycle comprehensive circuit tree trimming	To be completed in 2011	160-11	ł
	·	<del> </del>	Performance driven by two failures of the 336 AASP (spacer construction		uit minuton.	<u> </u>
		1	77% of circuit minutes from the 6/27/10 failure.	mainime at 64% of circs	ut minutes;	
			Installed fault indicators 6 locations	Complete	Aug-10	1
36	Roundtop	00583-4	Replaced 3 poles, 5 insulators, 2 arrestors, 3 crossarms, and 5 miscellaneous	Complete		· ·
			items	Complete	Nov-11	}
			Perform detailed circuit reliability assessment of backbone	Complete	Mar-11	1
		L	Perform detailed circuit reliability assessment of 3 phase	Complete	11ar-11	1
37	Clearfield	00631-3	Performance was driven by a loss of supply and a vehicle accident, 40% o accident on 10/26/10.	f circuit minutes due to	vehicle	
			Perform accelerated assessment on the circuit backbone	To be completed in 2011		1

Met-E	d					
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 Switch (Cutout) equipment failure(89% of the minu outage.	ites) and a animal cause	d substation	
			Replace Switch T1-156 w/ 600 A Disc.	Complete	Jan-10	
			Replace Switch T3-153 w/ 600 A Disc.	Complete	Jan-10	1
			Replace Switch 15336 w/ 600 A Disc.	Complete	Jan-10	1
	19th and Cotton	00153-1	Replace Switch T1-153 w/ 600 A Disc.	Complete	Jan-10	1
			Replace Switches 13629 & 13659 w/ 600 A Disc.	Complete	Jan-10	1
		ļ	Installed Animal Guard on Substation Equipment	Complete	Jul-10	1
			Install Fuse Bypass Switch	Complete	Nov-10	1
		1	Perform accelerated backbone assessment	To be completed in 2011		]
			Install Mainline Fault Indicators 4 Locations	To be completed in 2011		
	-		Performance driven by a vehicle cause outage during a wind storm (72%	of minutes).		
			Perform accelerated assessment on the circuit backbone and 3 phase of the circuit	Complete	Feb-10	1
	Newberry		Perform accelerated assessment on the circuit backbone and 3 phase of the circuit.	Complete	Jun-10	10 2010 20 2010
			Forestry to perform on cycle comprehensive circuit Tree Trimming	Complete	Jun-10	30 2010
			Perform accelerated backbone assessment	To be completed in 2011		40 2010
			Install fault indicators on the circuit three phase backbone.	To be completed in 2011		
			Performance driven by trees non-preventable and recloser outages caus fire.	ed by a cap bank proble	m and a pole	
] 			Crossarm, insulator and arrestor repairs	Complete	Feb-10	1
	D-4.	00705 4	Perform accelerated backbone assessment	Complete	Mar-10	1
	Barto	00706-1	Perform accelerated three phase assessment	Complete	Mar-10	1
'		1	Perform Fault Current Indicator Installation Engineering Study	Complete	Mer-10	1
			Install Fault Current Indicators at ten locations	Complete	May-10	
			Perform accelerated backbone assessment	Complete	Feb-11	1
	· <u>-</u> -		Performance driven by a one vehicle contact caused outage (66% of minut	tes).		
,			Perform accelerated assessment on the circuit backbone and 3 phases of the circuit	Complete	Ju⊦10	10 2010
	Pleasureville 00	00710-4	Forestry to perform on cycle comprehensive circuit Tree Trimming	Complete	Dec-10	20 2010
		ŀ	Install fault indicators on the circuit three phase backbone.	Complete	Dec-10	3Q 2010
			Install additional fuses to protect the circuit backbone	To be completed in 2011		4Q 2010
L		] .	Perform accelerated backbone assessment	To be completed in 2011		

Met-E	d							
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters		
	North Lebanon	00712-2	Performance was primarily driven by tree caused outages, UG conductor failures and a recloser failure.					
			Accelerated circuit assessment 3 phase	Complete	Apr-10			
			Reconfigure Circuit/Minimize Exposure	Complete	Арг-10			
			Install fuses 4 locations	Complete	Sep-10			
			Perform SAIFI analysis initiative study	Complete	Feb-11			
			Perform accelerated backbone assessment	Complete	Mar-11			
			Install additional mainline switch	To be completed in 2011				
			Repair high priority items identified during circuit assessment	To be completed in 2012				
	Annville	1	Performance was primarity driven by tree caused outages and cutout failures.					
			Accelerated circuit assessment 3 phase	Complete	May-10			
			Post storm assessment due to excessive damage	Complete	Jun-10			
			Forestry Patrol of Backbone and all of Three-Phase along Lancaster Ave	Complete	Oct-10			
			Install additional disconnect switches	Complete	Mar-11			
ł			Perform accelerated backbone assessment	To be completed in 2011				
			Comprehensive Tree Trimming	To be completed in 2011				
	Windsor	00795-4	Circuit performance was driven by storm events (94% of minutes).		·			
			Perform Accelerated circuit three phase backbone assessment after wind storm	Complete	Jul-10	10 2010 20 2010 30 2010 40 2010		
			Investigate additional Fault Indicators	Complete	Jul-10			
			Install additional Fault Indicators	Complete	Aug-10			
			Perform accelerated assessment on the circuit backbone and 3 phase of the circuit					
			after a wind storm	Complete	Oct-10			
			Perform Accelerated circuit three phase backbone assessment after wind storm	Complete	Feb-11			
			Perform accelerated backbone assessment	Complete	Feb-11			
			Forestry to perform on cycle comprehensive circuit Tree Trimming	To be completed in 2012				

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

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