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

610-929-3601

July 30, 2010

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

L - 000301(0)

Re: Joint 2<sup>nd</sup> Quarter 2010 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 their Joint 2<sup>nd</sup> Quarter 2010 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 (610) 921-6060 elliottd@firstenergycorp.com

Erić J. Dickson Director, Operations Services (330) 384-5970 dicksone@firstenergycorp.com



JUL 30 2010

PA PUBLIC HTILITY COMMISSION SECR RY'S BUREAU

#### BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Joint 2<sup>nd</sup> Quarter 2010 Reliability Report : Public Version – Pennsylvania Power : Company, Pennsylvania Electric Company : and Metropolitian Edison Company - : Pursuant to 52 Pa. Code § 57.195(d) and (e) :

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#### **CERTIFICATE OF SERVICE**

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

Service by 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 5<sup>th</sup> Floor Forum Place 555 Walnut Street Harrisburg, PA 17101 <u>spopowsky@paoca.org</u> tmccloskey@paoca.org William R. Lloyd, Esq. Daniel Asmus, Esq. Office of Small Business Advocate 300 North 2<sup>nd</sup> Street Harrisburg, PA 17101 willoyd@state.pa.us dasmus@state.pa.us

Service by electronic mail, as follows:

Darren Gill Blaine Loper Bureau of Conservation, Economics & Energy Planning Pennsylvania Public Utility Commission dgill@state.pa.us bloper@state.pa.us

Dan Searfoorce Bureau of Fixed Utility Services Pennsylvania Public Utility Commission <u>dsearfoorc@state.pa.us</u>



JUL 30 2010

PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU Dated: July 30, 2010

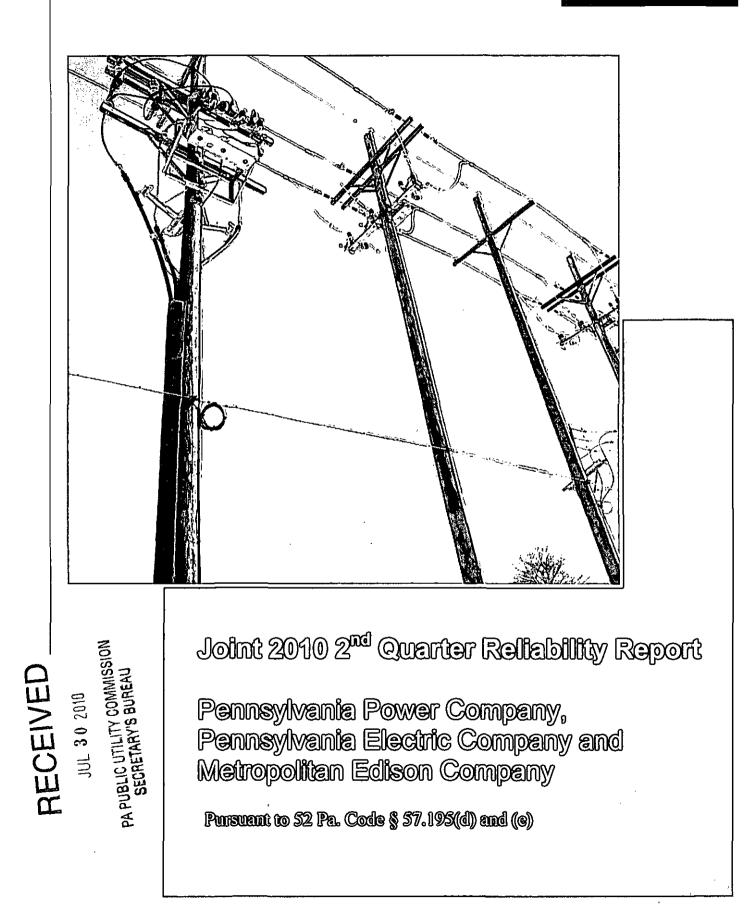
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Original Signed:

Lori B. Barman FirstEnergy Service Company 76 S. Main Street Akron, OH 44308 (330) 252-6380 Ibarman@firstenergycorp.com

## **PUBLIC VERSION**





## Joint 2<sup>nd</sup> Quarter 2010 Reliability Report – Pennsylvania Power Company, Pennsylvania Electric Company and Metropolitan Edison Company

The following Joint 2<sup>nd</sup> Quarter 2010 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, 2010.

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

### Major Events

The Companies did not experience a major event during the reporting period ending June 30, 2010.

<sup>&</sup>lt;sup>a</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.

2Q 2010	٩	enn Powe	r		Penelec		Met-Ed		
(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	0.92	1.26	1.52	1.35	1.15	1.38	1.29
CAIDI	101	121	118	117	141	133	117	140	124
SAIDI	113	162	109	148	213	181	135	194	161
Customers Served <sup>(a)</sup>	157,485			582,760			544,436		
Number of Sustained Interruptions	2,856				11,177 9,719				
Customers Affected	145,274				789,204		702,524		
Customer Minutes	17,117,162			1	105,339,089 87,413,353				

## Reliability Index Values

(a) Represents the average number of customers served during the reporting period.

Penn Power, Penelec, and Met-Ed results for 2<sup>nd</sup> Quarter 2010 are:

- better than the Commission's 12-Month Standard for 9 out of 9 reliability indices (SAIFI, CAIDI, SAIDI)
- better than, or equal to, the Commission's Benchmark for 2 of the 9 reliability indices

	Penn Power
SAIFI	31% better than Commission's 12-Month Standard 18% better than Commission's Benchmark
CAIDI	2% better than Commission's 12-Month Standard
SAIDI	33% better than Commission's 12-Month Standard 4% better than Commission's Benchmark
	Penelec
SAIFI	11% better than Commission's 12-Month Standard
CAIDI	6% better than Commission's 12-Month Standard
SAIDI	15% better than Commission's 12-Month Standard
	Met-Ed
SAIFI	7% better than Commission's 12-Month Standard
CAIDI	11% better than Commission's 12-Month Standard
SAIDI	17% better than Commission's 12-Month Standard

<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.

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<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.

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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

	Outages by	Cause		
2nd Quarter 2010 12-Month Rolling		Penn I	Power	
Cause	Customer Minutes	Number of Sustained Interruptions	Customers Affected	% Based on Number of Outages
TREES/NOT PREVENTABLE	6,464,013		32,537	21.22%
LIGHTNING	1,283,796	404	11,642	14.15%
EQUIPMENT FAILURE	4,158,230	396	48,337	13.87%
ANIMAL	625,343	353	9,264	12.36%
BIRD	323,263	277	4,535	9.70%
LINE FAILURE	1,473,429	252	9,592	8.82%
UNKNOWN	396,872	136	3,433	4.76%
VEHICLE	1,245,144	82	10,840	2.87%
OVERLOAD	96,402	76	1,616	2.66%
PREVIOUS LIGHTNING	27,924	62	672	2.17%
FORCED OUTAGE	322,144	61	4,544	2.14%
HUMAN ERROR -NON-COMPANY	363,589		3,546	1.58%
TREES/PREVENTABLE	75,383	36	568	1.26%
ICE	2,041	15	17	0.53%
OBJECT CONTACT WITH LINE	21,005	14	222	0.49%
UG DIG-UP	11,391	12	73	0.42%
CUSTOMER EQUIPMENT	94,418	10	1,320	0.35%
VANDALISM	12,967	9	144	0.32%
HUMAN ERROR - COMPANY	111,260		2,355	0.25%
CONTAMINATION	1,684	2	13	0.07%
WIND	6,864	1	4	0.04%
TOTAL	17/1117/162	2,856	145,274	100!00%

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#### 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.

#### 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 and line arresters and grounding. These items are maintained by our substation group based on our substation practices. Distribution protection coordination reviews allow for 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 2009; all of Penn Power's 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 17 circuits. These scans find "hot spots" that are repaired before they cause an outage.

### Outages by Cause - Penelec

2nd Quarter 2010 12-Month Rolling		Pene	lec	
Cause	Customer Minutes	Number of Sustained Interruptions	Customers Affected	% Based on Number of Outages
EQUIPMENT FAILURE	21,003,194	3,221	198,613	28.82%
TREES/NOT PREVENTABLE	39,119,620	1,901	177,097	17.01%
UNKNOWN	7,000,608	1,568	88,728	14.03%
ANIMAL	2,816,637	1,085	35,373	9.71%
LINE FAILURE	13,303,054	829	108,862	7.42%
FORCED OUTAGE	3,395,519	616	39,670	5.51%
LIGHTNING	3,410,228	487	25,081	4.36%
VEHICLE	4,663,157	299	36,732	2.68%
BIRD	637,038	292	7,852	2.61%
HUMAN ERROR - COMPANY	344,155		17,325	1.27%
OVERLOAD	753,600	115	10,659	1.03%
HUMAN ERROR -NON-COMPANY	765,875	104	7,126	0.93%
PREVIOUS LIGHTNING	144,397	95	482	0.85%
ICE	60,250	88	369	0.79%
UG DIG-UP	234,962	71	979	0.64%
OTHER ELECTRIC UTILITY	231,239	61	1,247	0.55%
WIND	6,870,658	61	21,190	0.55%
TREES/PREVENTABLE	48,645	31	720	0.28%
VANDALISM	147,577	28	2,550	0.25%
OBJECT CONTACT WITH LINE	158,325	22	2,886	0.20%
CUSTOMER EQUIPMENT	9,562	19	112	0.17%
FIRE	56,729	17	372	0.15%
OTHER UTILITY-NON ELEC	63,475	11	1,573	0.10%
SWITCHING ERROR	51,214	5	3,128	0.04%
CONTAMINATION	30,762	4	346	0.04%
Unknown	18,547	4	131	0.04%
CALL ERROR	62	1	1	0.01%
TOTAL	105,339,089	11,177	7,89,204	100/00%

#### Proposed Solutions – Penelec

#### Equipment Failure

Penelec has identified porcelain cutout failures to be a large contributor to equipment failure outages and, as such, has been replacing porcelain cutouts with polymer cutouts as a preventive measure in conjunction with existing work plans, as a part of the targeted mainline equipment replacement program.

The number of equipment failures are further mitigated by way of inspection and maintenance practices, such as circuit inspections and others. Penelec's entire main feed three-phase backbone was inspected during 2008 to identify and repair critical problems before they caused a potential outage. Inspections of the main feed three-phase backbone was performed again on 50% of the circuits during 2009. Infrared scanning on the main feed three-phase backbone has been completed on 46% of Penelec's circuits since 2008.

In addition, 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. 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.

#### 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.

#### 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.

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## Outages by Cause - Met-Ed

	Outages by Cause										
2nd Quarter 2010 12-Month Rolling		Met-E	d								
Cause	Customer Minutes	Number of Sustained Interruptions	Customers Affected	% Based on Number of Outages							
EQUIPMENT FAILURE	16,789,833	2355	187,232	24.23%							
TREES/NOT PREVENTABLE	36,977,843	2241	199,417	23.06%							
ANIMAL	1,919,421	1425	24,044	14.66%							
	4,415,867	1263	42,362	13.00%							
LINE FAILURE	8,733,416	735	59,735	7.56%							
LIGHTNING	1,999,257	451	14,535	4.64%							
FORCED OUTAGE	3,444,500	315	61,325	3.24%							
VEHICLE	5,396,441	258	39,099	2.65%							
BIRD	261,028	132	4,879	1.36%							
TREES/PREVENTABLE	569,427	118	4,168	1.21%							
OVERLOAD	1,890,629	83	14,353	0.85%							
HUMAN ERROR -NON-COMPANY	424,458	75	3,699	0.77%							
HUMAN ERROR - COMPANY	1,104,144	62	31,699	0.64%							
PREVIOUS LIGHTNING	68,005	56	503	0.58%							
UG DIG-UP	144,402	32	836	0.33%							
WIND	2,552,981	28	8,106	0.29%							
lice	1,984	23	23	0.24%							
OBJECT CONTACT WITH LINE	370,967	22	4,318	0.23%							
CUSTOMER EQUIPMENT	73,447	18	722	0.19%							
VANDALISM	2,332	8	14	0.08%							
FIRE	55,573	7	244	0.07%							
OTHER UTILITY-NON ELEC	210,610	6	1,193	0.06%							
OTHER ELECTRIC UTILITY	6,762	5	17	0.05%							
CONTAMINATION	26	1	1	0.01%							
TOTAL	87,413,353	9,7(19)	7,02,524	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 Engineering 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.

#### <u>Animal</u>

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).

Increation	ji Balaintan		Per	ın Powe	er		Penelec		Met-Ed			
<ul> <li>Inspection a</li> </ul>	2010	lance	Planned	Com	pleted	Planned	Completed		Planned Completed		pleted	
	1		Annual	2Q	YTD	Annual	2Q	YTD	Annual	2Q	YTD	
Forestry	Transmission (Miles)		189	47	62	456	40	46	133	29	38	
roreatiy	Distribution	n (Miles)	832	159	411	4,817	1,103	1,877	2,671	722	1,281	
Transmission	Aerial P	atrols	2	0	1	2	0	1	2	0	1	
1141311133101	Groundline <sup>b</sup>		150	187	187	2,024	1,379	1,379	1,206	0	0	
	General Inspections		1,044	261	522	5,544	1,398	2,784	2,916	729	1,458	
Substation	Transformers		123	18	123	834	113	790	488	95	270	
Substation	Breakers		68	6	46	601	167	497	162	61	96	
	Relay Schemes		74	16	46	443	70	351	469	45	159	
	Capac	Capacitors		0	990	8,632	320	8,632	4,581	0	4,581	
	Pole	es	12,400	2,450	12,557	50,000	30,846	30,846	30,000	6,024	32,422	
		,	Planned	Com	pleted	Planned	Com	oleted	Planned	Con	pleted	
Distribution	Reclos	ers <sup>c</sup>	727	216	216	2,489 <sup>d</sup>	0	0	877	2	879	
	Radio- Controlled 2010		Penn Power has no radio		1,036	1,042		40	40			
	Switches (2 / year)	2nd half 2010	contro	controlled switches					40			

## T&D Inspection and Maintenance Programs

General Note:

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

<sup>b</sup> Transmission groundline inspections:

- Penn Power includes 69kV and 138kV
- Penelec includes 115kV
- Met-Ed includes 69kV, 115kV and 230 kV

<sup>c</sup> Pursuant to the Inspection, Maintenance, Repair and Replacement programs that were approved by the Commission on December 15, 2009 the Companies visually inspect line reclosers annually.

<sup>&</sup>lt;sup>d</sup> Plan number changed from 2,490 to 2,489 – one recloser taken out of service

<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

	T&D 0&	M - 2Q / Y	TD June	e 2010(\$)		
Company	PUC Category	2Q Actuals	2Q Budget	YTD Actual	YTD Budget	Annual Budget
	<b>Corrective Maintenance</b>	229,761	1,115,799	526,089	2,539,888	4,577,944
	Preventive Maintenance	310,346	3,044	475,884	6,087	12,174
Penn Power	Storms	133,533	173,491	275,021	345,622	695,962
Leitii Lomei	Vegetation Management	425,249	935,645	758,841	1,921,290	3,482,580
	Misc	458,565	640,846	973,522	1,329,103	2,768,827
	Operations	490,801	708,721	1,075,083	1,167,183	2,579,489
	Penn Power Total	2,048,255	3,577,546	4,084,440	7,309,173	14,116,976
	Corrective Maintenance	1,099,488	3,737,126	1,458,720	7,474,253	14,948,507
	Preventive Maintenance	1,832,499	994,796	2,169,665	1,989,593	3,979,186
Penelec	Storms	780,858	687,502	1,702,204	1,375,004	2,750,007
renelec	Vegetation Management	2,237,534	2,346,296	4,190,955	3,394,591	7,651,229
	Misc	1,781,004	1,535,017	3,697,028	2,945,966	6,540,399
	Operations	3,562,917	6,198,863	8,092,390	10,952,339	23,738,465
	Penelec Total	11,294,300	15,499,600	21,310,962	28,131,746	59,607,793
	Corrective Maintenance	805,054	2,541,140	2,228,527	4,932,179	10,778,850
	Preventive Maintenance	2,378,533	755,690	7,347,861	1,424,950	2,961,935
Met-Ed	Storms	545,668	1,543,911	1,231,608	2,929,213	6,064,242
Inter-Co	Vegetation Management	2,135,829	1,904,378	3,820,739	3,500,225	7,178,113
	Misc	1,600,080	1,452,682	2,927,636	2,717,794	5,628,033
	Operations	3,750,903	8,273,113	7,536,010	14,105,419	30,418,454
	Met-Ed Total	11,216,067	16,470,914	25,092,381	29,609,780	63,029,627
Grand Total		24,558,622	35,548,060	50,487,783	65,050,699	136,754,396

<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

۲ ۲	T&D Capital Only Includes CIA(net) - 2Q / YTD June 2010 (\$)										
Сотралу	PUC Category	2Q Actual	2Q Budget	YTD Actual	YTD Budget	Annual Budget					
	New Business	979,305	1,260,560	1,728,761	1,971,038	4,033,297					
	Reliability	1,657,742	2,332,082	3,185,687	3,969,674	9,253,672					
Donn Dowor	Capacity	(59,763)	30,047	22,238	48,539	99,532					
Penn Power	Misc	416,749	133,244	943,728	604,562	668,293					
	Forced	2,259,525	1,049,743	3,391,970	1,803,059	3,985,920					
	Vegetation Management	1,675,323	461,685	3,517,695	963,485	1,678,339					
	PennPower Total	6,928,881	5,267,361	12,790,079	9,360,357	19,719,053					
	New Business	3,909,003	4,333,058	7,463,199	8,145,492	17,227,653					
	Reliability	7,961,230	11,491,790	17,125,480	19,805,618	41,001,900					
Penelec	Capacity	4,835,455	7,333,490	6,470,250	11,879,283	18,171,872					
renelec	Misc	847,364	1,628,542	3,869,473	4,856,678	7,744,948					
	Forced	8,067,991	7,077,508	13,495,785	13,787,742	27,100,339					
	Vegetation Management	5,278,681	5,152,589	9,863,848	7,844,262	17,405,125					
	Penelec Total	30,899,724	37,016,977	58,288,035	66,319,075	128,651,837					
•	New Business	5,015,372	4,859,903	8,717,069	9,374,366	21,384,212					
	Reliability	5,361,042	6,253,767	11,834,423	13,422,482	24,629,352					
Met-Ed	Capacity	5,900,322	2,812,116	11,713,868	13,166,764	15,259,222					
เพยเ-ยน	Misc	1,083,678	1,013,549	2,994,491	3,096,112	4,907,552					
	Forced	7,344,117	6,587,719	10,976,906	10,592,288	19,135,777					
	Vegetation Management	4,130,265	4,164,460	8,115,445	8,180,815	16,393,794					
	Met-Ed Total	28,834,796	25,691,514	54,352,202	57,832,827	101,709,909					
Grand Total		66,663,401	67,975,852	125,430,316	133,512,259	250,080,799					

<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

	Penn Power 2010										
Department	Staff	1Q	2Q	3Q	4Q						
Line	Leader / Chief	27	27								
	Lineman	54	66								
Substation	Technician	6	6								
	Construction & Maintenance (C&M)	14	16								
	দুর্বার্য	101	115								

	Penelec 2010				
Department	Staff	1Q	2Q	3Q	4Q
 Line	Leader / Chief	140	138		
Eme	Lineman	189	199		[
Substation	Technician	8	7		
Substation	Construction & Maintenance (C&M)	69	69		
	Total	406	413		

	Met-Ed 2010										
Department	Staff	1Q	2Q	3Q	-4Q						
Line	Leader / Chief	53	53								
	Lineman	159	158								
Substation	Technician	12	12								
-	Construction & Maintenance (C&M)	57	56								
	Total	231	279								

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

## Contractor Expenditures

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

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

Call-out Acceptance Rate

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

## Call-out Response

Larger utilities report the amount of time it takes to obtain the necessary personnel during call-outs. The Companies have worked with other utilities to ensure consistency in calculating and reporting this data.

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

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## ATTACHMENT A

## Worst Performing Circuits - Reliability Indices

Joint 2010 Quarterly Reliability Report for period-ending June 30, 2010 Blank Page

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 Pow	ver s de la conse	A States				÷ 199						ا او شایدیه ا در اسام دری ۲	7894 (M. 1977) 1977 - 1977 1977 - 1977 - 1977
Circuit Rank	Substation	Circuit Desc	District	Average Customers (1)	Outages (2)	Lockouts (3)	Customer Minutes (4)	Customers Affected (5)	SAIDI Impact (6)	Saea (7)	5AIFI (7)	CAIDI (7)	MAIFI (7)
1	HARTSTOWN	W-126	Clark	2,164	65	1	1,105,026	5,851	7.02	511	2.70	189	4.5
2	EVANS CITY	D-611	Zeli	980	33	1	586,531	4,607	3.72	599	4.70	127	8.3
3	PERRY	W-156	Clark	1,039	50	0	489,482	2,271	3.11	471	2.19	216	0.0
4	MERCER	W-128	Clark	1,225	32	0	419,034	800	2.66	342	0.65	524	1.2
5	MERCER	W-167	Clark	1,375	47	0	412,825	1,860	2.62	300	1.35	222	0.9
6	JACKSON	W730	Zeli	1,878	19	1	397,268	2,473	2.52	212	1.32	161	5.0
7	MCDOWELL	W-122	Clark	648	28	1	364,195	1,284	2.31	562	1.98	284	0.2
8	CANAL	W-103	Clark	1,402	58	0	337,278	1,427	2.14	241	1.02	236	0.0
9	HARLAN	D-343	New Castle	1,303	31	1	311,470	2,997	1.98	239	2.30	104	0.2

(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.

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Circuii Rank	Substation	Circuit Desc	District	Average Customers (1)	Outages (2)	Lockouts (3)	Customer Minutes (4)	Customers Affected (5)	SAIDI Impaci (6)	saidi (7)	SALFI (7)	CAIDI (7)	Maifi (7)
1	Belmont	00902-11	Johnstown	1,490	6	1	3,000,294	2,485	5.15	2,014	1.67	1,207	1.00
2	Springboro	00237-52	Meadville	2,863	56	0	2,626,343	8,635	4.51	917	3.02	304	13.54
3	Philipsburg	00162-22	Philipsburg	3,264	100	1	1,884,074	17,392	3.23	577	5.33	108	23.58
4	Millcreek	00055-11	Johnstown	2,100	23	1	1,580,598	4,087	2.71	753	1.95	387	0.05
5	Hittop	00048-11	Johnstown	2,579	23	1	1,394,742	3,586	2.39	541	1.39	389	7.18
6	Salix	00070-11	Johnstown	2,262	39	1	1,252,432	4,124	2.15	554	1.82	304	2.74
7	Warren South	00220-41	Warren	2,963	70	0	1,037,081	5,800	1.78	350	1.96	179	5.12
8	Powell Ave	00513-31	Erie	1,719	16	1	978,101	3,397	1.68	569	1.98	288	4.11
9	Hilltop	00040-11	Johnstown	1,363	30	1	968,564	3,282	1.66	711	2.41	295	14.13
10	Tower 51	00051-11	Johnstown	552	20	0	806,244	809	1.38	1,461	1.47	997	15.55
11	Madera	00165-22	Philipsburg	762	29	1	764,156	3,914	1.31	1,003	5.14	195	38.38
12	Curryville	00644-71	Altoona	1,763	43	0	754,054	2,697	1.29	428	1.53	280	12.79
13	Birmingham	00168-22	Philipsburg	1,049	37	1	727,211	3,145	1.25	693	3.00	231	4.54
14	Athens	00514-61	Sayre	778	24	0	722,822	1,737	1. <b>24</b>	929	2.23	416	1.42
15	Madera	00166-22	Philipsburg	2,236	69	0	720,769	5,349	1.24	322	2.39	135	9.94
16	Fairview East	00218-34	Erie	1,002	23	0	709,050	2,734	1.22	708	2.73	259	4.20
17	Powell Ave	00237-31	Erie	2,020	31	0	705,158	4,986	1.21	349	2.47	141	7.42
18	Buffalo Road	00580-31	Erie	1,251	20	1	689,754	1,902	1.18	551	1.52	363	3.69
19	Rolling Meadows	00310-31	Erie	3,075	13	0	644,347	3,095	1.11	210	1.01	208	26.38
20	Shawville	00151-21	Clearfield	2,339	42	2	642,616	10,935	1.10	275	4.68	59	15.23
21	Grover	00527-63	Mansfield	1,104	69	0	619,687	2,376	1.06	561	2.15	261	9.98
22	Scalp Level	00031-11	Johnstown	927	10	0	616,219	4,281	1.06	665	4.62	144	24.40
23	Philipsburg	00161-22	Philipsburg	773	27	0	609,009	3,098	1.05	788	4.01	197	4.60
24	Eikiand	00625-63	Mansfield	870	4	1	593,146	875	1.02	682	1.01	678	0.78
25	Blairsville East	00082-13	Johnstown	1,554	30	2	568,687	2,777	0.98	366	1.79	205	9.66
26	Boyer	00583-31	Erie	1,570	41	1	550,314	4,439	0.94	351	2.83	124	1.45
27	Lake Como	00788-65	Montrose	622	42	2	544,037	3,770	0.93	875	6.06	144	16.04
28	Curryville	00610-71	Altoona	477	18	1	499,838	795	0.86	1,048	1.67	629	4.90

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Circuit Rank	Substation	Circuít Desc	District	Average Customers (1)	Outages (2)	Lockouts (3)	Customer Minutes (4)	Ciustomers Affected (5)	SAIDI Impact (6)	SAIÐI (7)	SAIFI (7)	CAIDI (7)	MAIFI (7)
29	Bay	00911-11	Johnstown	606	7	1	491,962	667	0.84	812	1.10	738	1.00
30	Green Garden	00224-31	Erie	2,164	20	1	489,351	3,313	0.84	226	1.53	148	4.09
31	Lowell Avenue	00518-31	Erie	968	21	2	481,667	2,661	0.83	498	2.75	181	43.53
32	Edinboro	00421-34	Erie	594	14	1	470,841	1,688	0.81	793	2.84	279	1.15
33	Erie South	00259-31	Erie	2,559	60	0	451,301	3,821	0.77	176	1.49	118	6.29
34	Blairsville East	00080-13	Johnstown	<del>99</del> 5	25	0	451,046	2,907	0.77	453	2.92	155	7.77
35	Greenwood	00003-71	Altoona	1,527	15	1	448,999	1,880	0.77	294	1.23	239	6.28
36	Marienville	00328-51	Oil City	1,199	28	0	444,157	1,640	0.76	370	1.37	271	22.11
37	Union City	00206-43	Corry	3,739	92	0	443,303	4,979	0.76	119	1.33	89	12.96
38	French Rd	00550-31	Erie	1,337	14	1	438,302	2,218	0.75	328	1.66	198	7.98
39	South Fork	00229-11	Johnstown	618	3	0	436,288	637	0.75	706	1.03	685	0.00
40	DuBois	00137-23	DuBois	2,860	59	0	432,449	5,092	0.74	151	1.78	85	3.21
41	Millcreek	00052-11	Johnstown	1,088	10	0	429,668	1,467	0.74	395	1.35	293	10.01
42	Clearfield	00148-21	Clearfield	1,691	64	0	401,040	3,246	0.69	237	1.92	124	27.05
43	Brady Street	00136-23	DuBois	670	6	0	390,991	2,577	0.67	584	3.85	152	1.98
44	Tunkhannock	00533-65	Tunkhannock	1,240	39	0	382,398	2,421	0.66	308	1.95	158	7.34
45	Tionesta Switching Station	00498-51	Oil City	1,120	29	0	379,929	1,318	0.65	339	1.18	288	8.13
46	Edgewood	00097-13	Johnstown	1,357	6	0	374,349	1,265	0.64	276	0.93	296	6.11
47	Alexandria	00097-82	Huntingdon	952	29	1	373,500	1,369	0.64	392	1.44	273	1.52
48	Two Mile	00127-42	Bradford	1,301	29	1	370,331	2,943	0.64	285	2.26	126	3.41
49	Erie South	00312-31	Erie	1,435	36	0	354,402	5,058	0.61	247	3.52	70	6.08
50	Roxbury	00138-83	Shippensburg	508	18	2	350,933	1,473	0.60	691	2.90	238	0.00
51	Millcreek	00219-11	Johnstown	796	9	0	344,719	269	0.59	433	0.34	1,281	2.01
52	Lake Como	00787-65	Montrose	853	23	0	333,080	2,115	0.57	390	2.48	157	29.93
53	Eagles Mere	00686-62	Towanda	313	23	2	329,530	1,004	0.57	1,053	3.21	328	5.24
54	Lewis Run	00409-42	Bradford	718	31	0	325,173	1,302	0.56	453	1.81	250	2.75
55	St. Benedict	00057-72	Ebensburg	916	11	2	324,486	1,858	0.56	354	2.03	175	7.54

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Cîrculi Rank	Substation	Circuit Desc	District	Average Customens (1)	Outages (2)	Lockouts (3)	Ċustomer Minutes (4)	Customers Affected (5)	SAIDI Impaci (5)	Saidi (7)	Saifi (7)	CAIDI (7)	MAIFI (7)
56	Timblen	00103-23	DuBois	734	22	1	319,605	1,520	0.55	435	2.07	210	15.87
57	Erie East	00234-31	Erie	936	45	0	319,461	2,100	0.55	341	2.24	152	7.78
58	Walnut Street	00520-31	Erie	1,779	13	0	316,435	5,924	0.54	178	3.33	53	5.39
59	Greenwood	00041-71	Altoona	1,238	32	0	308,418	1,543	0.53	249	1.25	200	6.59

(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.
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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.

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Circuit Rank	Substation	Circuit Desc	District	Average Customers (1)	Outages (2)	Lockouts {3}	Customer Minutes (4)	Customers Affected (5)	SAIDI impact (6)	SAIDI (7)	SAIFI ମଧ୍ୟ	CAIÐI (7)	Maifi {7}
1	YORKANA SUBSTATION	00708-4	York	2,674	76	3	1,557,986	11,459	811.45	583	4.29	136	1.00
2	BIRDSBORO	00756-1	Reading	1,534	81	2	1,490,786	9,358	776.45	972	6.10	159	11.78
3	NO BANGOR	00826-3	Easton	3,184	106	2	1,443,962	18,877	752.06	454	5.93	76	3.79
4	YORKANA SUBSTATION	00715-4	York	2,330	75	2	1,436,310	6,287	748.08	616	2.70	228	4.01
5	NEWBERRY SUB	00576-4	York	1,789	77	1	1,134,161	5,879	590.71	634	3.29	193	21.74
6	BIRDSBORO	00757-1	Reading	1,913	52	1	1,119,456	4,349	583.05	585	2.27	257	9.49
7	19TH AND COTTON	00153-1	Reading	1,592	11	1	1,012,879	2,718	527.54	636	1.71	373	0.95
8	WALKER SUB	00865-3	Stroudsburg	2,047	54	0	908,526	2,893	473.19	444	1.41	314	4.20
9	ANNVILLE SUBSTATION	00742-2	Lebanon	1,005	37	2	875,815	5,018	456.15	871	4.99	175	2.42
10	NORTH CORNWALL SUB	00610-2	Lebanon	1,753	36	1	868,601	3,960	452.40	495	2.26	219	6.65
11	NORTH LEBANON	00712-2	Lebanon	2,026	35	2	852,332	7,742	443.92	421	3.82	110	15.20
12	WINDSOR	00795-4	York	1,036	81	0	846,082	2,755	440.67	817	2.66	307	0.00
13	CAMPBELLTOWN SUB	00731-2	Lebanon	2,275	69	1	844,029	5,628	439.60	371	2.47	150	13.79
14	FOX HILL SUBST	00816-3	Stroudsburg	3,698	67	1	796,092	5,089	414.63	215	1.38	156	5.21
15	ALLEN SUB	00503-4	Hanover	1,903	58	3	771,816	6,913	401.99	406	3.63	112	14.17
16	GRANTVILLE SUB	00721-2	Lebanon	1,150	37	2	767,388	2,682	399.68	667	2.33	286	4.00
17	SHAWNEE SUB	00822-3	Stroudsburg	3,695	88	0	765,958	7,943	398.94	207	2.15	96	12.84
18	BARTO SUB	00706-1	Boyertown	2,566	94	0	738,481	3,654	384.63	288	1.42	202	18.36
19	DILLSBURG SUBSTATION	00746-4	Hanover	2,128	47	1	691,140	5,063	359.97	325	2.38	137	3.27
20	FLYING HILLS SUB	00777-1	Reading	1,751	47	0	686,123	3,280	357.36	392	1.87	209	15.69
21	BRIDGETON SUB	00117-3	Easton	297	13	2	685,567	814	357.07	2,308	2.74	842	2.00
22	ALLEN SUB	00502-4	Hanover	1,025	51	1	675,222	3,269	351.68	659	3.19	207	8.99
23	ANNVILLE SUBSTATION	00743-2	Lebanon	610	38	0	657,360	3,732	342.38	1,078	6.12	176	3.09
24	SHAWNEE SUB	00860-3	Stroudsburg	3,219	67	1	635,074	6,525	330.77	197	2.03	97	11.01
25	ROUND TOP	00583-4	Hanover	372	35	3	620,189	2,238	323.02	1,667	6.02	277	8.38
26	PLEASUREVILLE	00710-4	York	922	14	2	619,020	1,912	322.41	671	2.07	324	0.00
27	NEWBERRY SUB	00586-4	York	1,595	36	1	610,815	2,572	318.13	383	1.61	237	9.99
28	SHAWNEE SUB	00837-3	Stroudsburg	1,189	29	3	587,778	3,150	306.13	494	2.65	187	6.58

#### **PUBLIC VERSION**

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Circuit Rank	Substation	Circuit Desc	District	Average Customers (1)	Outages (2)	Lockouts (3)	Customer Minutes (4)	Customers Affected (5)	SAIDI Impact (6)	Saidi (7)	SAIFI (7)	CAIDI (7)	MAIFI (7)
29	BERNVILLE SUB	00787-1	Reading	1,757	55	1	568,019	3,345	295.84	323	1,90	170	17.36
30	NORTH HANOVER SUBSTA	00514-4	Hanover	1,191	25	0	560,310	2,912	291.83	470	2.45	192	4.46
31	CAMPBELLTOWN SUB	00634-2	Lebanon	1,018	38	1	541,593	2,412	282.08	532	2.37	225	4.97
32	BARTO SUB	00705-1	Boyertown	2,086	112	0	512,266	2,294	266.81	246	1.10	223	15.11
33	GARDNERS	00750-4	Hanover	1,294	28	3	507,628	4,678	264.39	392	3.62	109	3.00
34 ·	BERNVILLE SUB	00786-1	Reading	1,827	56	2	506,702	4,172	263.91	277	2.28	121	5.02
35	HILL SUB	00736-4	York	1,065	24	3	506,473	3,432	263.79	476	3.22	148	2.00
36	DILLSBURG SUBSTATION	00749-4	Hanover	1,786	44	1	475,886	3,674	247.86	266	2.06	130	3.00
37	BIRDSBORO	00759-1	Reading	713	27	3	473,836	2,012	246.79	665	2.82	236	8.39

(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.

## 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		and the second secon			
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 two outages caused by non-preventable tree	s.		
			Engineering field review of the section of circuit served by a recloser. No additional work identified	Complete	90⊣uL	10 2009
			Engineering field review of the section of circuit served by substation breaker. No additional work identified	Complete	May-09	2Q 2009 3Q 2009
1	Hartstow∩	W-126	Complete reliability work identified	Complete	Sep-09	40 2009
			Forestry to trim circuit in 2010	Complete	Jun-10	10 2010
			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 of identified conductors and equipment.	To be completed in 2010		20 2010
			Performance was driven by one outage caused by a non-preventable tree human error non-company during tree trimming incident.	and one outage cau	ised by	
2	Evans City	D-611	The out of right of way tree that was cut down by customer was removed at time of restoration	Complete	Jan-10	
			Problem tree was removed at time of restoration	Complete	Apr-10	
	Deer	W-156	Performance was driven by one outage caused by a non-preventable tree failure both occuring during minor storms.	and one outage cau	ised by line	
3	Perry	YV-130	Problem tree was removed at time of restoration	Complete	Dec-09	
			Cable was reattached at time of restoration	Complete	May-10	
=======================================			Performance was driven by one outage caused by a vehicle accident.	· · · · · · · · · · · · · · · · · · ·		
4	Mercer	W-128	Equipment that was broken due to the vehicle accident was replaced at time of restoration	Complete	May-10	
			Performance was driven by one outage caused by a non-preventable tree	during a minor sto	rm	1Q 2009 2Q 2009
5	Mercer	W-167	Engineering field review of the section of circuit served by the recloser	Complete	Ju⊢09	3Q 2009 4Q 2009
			Problem tree was removed at time of restoration	Complete	May-10	1Q 2010 2Q 2010

Penn	Power			· · · · ·		
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters
6	Jackson	W-730	Performance was driven by one outage caused by a non-preventable tree	during a minor sto	m.	
	380,000		Problem tree was removed at time of restoration	Complete	Dec-09	
7	McDowell	W-122	Performance was driven by one outage caused by a non-preventable tree	during a minor sto	m.	
			Problem tree was removed at time of restoration	Complete	May-10	
8	Canal	W-103	Performance was driven by one outage caused by a non-preventable tree	during a minor sto	m.	
0	Callal	44-102	Problem tree was removed at time of restoration	Complete	May-10	
			Performance was driven by one outage caused by a non-preventable tree	•		
9	Harlan	D-343	Problem tree was removed at time of restoration	Complete	Dec-09	
		0-040	Forestry to trim circuit	To be completed in 2010		

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Comp <u>leted</u>	Appeared in 4 of 6 Quarters				
1	Belmont	00902-11	Performance was driven by trees non-preventable during a min	or storm.	·····					
			Repair damage from minor storm	Complete	Apr-10					
			Performance was driven by trees non-preventable during a mil	or storm and CPA.						
			Repair damage to line during minor storm	Complete	Aug-09	10 2009				
			Engineering review of full circuit coordination	Complete	Aug-09	2Q 2009 3Q 2009				
2	Springboro	00237-52	Targeted Mainline Reliability Equipment Replacement	Complete	Nov-09	40 2009				
			Repair damage from CPA	Complete	Jan-10	10 2010				
			Repair damage from minor storm	Complete	Jun-10	20 2010				
			Review circuit for additional fault indicators	Complete	Apr-10					
			Performance was driven by trees non-preventable during min overload and CPA.	or storms, equipment	t failures,					
			Perform mainline reliability inspection	Complete	Feb-09					
3	Philipsburg	00162-22	Repair damage from CPA	Complete	Aug-09					
			Targeted Mainline Reliability Equipment Replacement	Complete	Sep-09					
			Repair damage from minor storm	Complete	Oct-09					
			Repair damage from minor storm	Complete	Dec-09	]				
	••••••••••••••••••••••••••••••••••••••		Performance was driven by trees non-preventable and wind da	mage during a minor	storm.					
4	Millcreek	00055-11	Repair damage from minor storm	Complete	Apr-10					
F	11204		Performance was driven by wind damage during a minor storm	).	<u> </u>					
5	Hiltop	00048-11	Repair damage from minor storm	Complete	Apr-10					
6	Salix	00070 44	Performance was driven by trees non-preventable and wind da	mage during a minor :	storm.					
v	AIRC	00070-11	Repair damage from minor storm	Complete	Apr-10					
			Performance was driven by non-preventable tree damage durin lightning damage.	ormance was driven by non-preventable tree damage during minor storm, animal and hing damage.						
7	Warren South	00220-41	Engineering review of full circuit coordination	Complete	May-09	30 2009				
			Targeted Mainline Reliability Equipment Replacement	Complete	Oct-09	40 2009 10 2010				
			Repair damage from minor storm	Complete	May-10	20 2010				

Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters
		1	Performance was driven by trees non-preventable during mine	or storm.		
8	Powell Ave	00513-31	Repair damage to line from minor storm	Complete	Oct-09	
	_		Targeted Mainline Reliability Equipment Replacement	Complete	Nov-09	
9	11394	00040-11	Performance was driven by trees non-preventable during a min	or storm.		
5	Hillop	00040-11	Repair damage from minor storm	Complete	Apr-10	1
10	 	00051-11	Performance was driven by wind damage during a minor storm			
10	Tower 51	00051-11	Repair damage from minor storm	Complete	Apr-10	
			Performance was driven by non-preventable tree damage durin	ng minor storms.		
	Madera 00165		Repair damage from minor storm	Complete	May-09	30 2009
11		00165-22	Repair damage from minor storm	Complete	Ju-09	4Q 2009 1Q 2010
			Perform mainline Reliability Inspection	Complete	Nov-09	20 2010
			Repair conditions found by previous reliability inspection	Complete	Jun-10	]
		Ì	Performance was driven by CPA, equipment failure and equipm	nent failure during min	or storm.	
			Repair damage from line failure	Complete	Apr-09	
12	Curre a sille	00644-71	Repair damage from CPA	Complete	Feb-10	
12	Curryville	00044-71	Repair damage from minor storm.	Complete	Apr-10	1
			Review circuit for additional fault indicators	To be completed 2010		]
			Targeted Mainline Reliability Equipment Replacement	To be completed 2010		
			Performance was driven by non-preventable trees during mind failure.	er storm, animal conta	ct and line	
	Birmingham 00168-22		Engineering review of full circuit coordination	Complete	Sep-09	1Q 2009 2Q 2009
13		00168-22	Repair damage from minor storm	Complete	Oct-09	3Q 2009
			Field review animal prone outage areas for additional animal guards	Complete	Nov-09	40 2009
		Add additional protection where needed. To be completed 2010				1Q 2010 2Q 2010
			Review circuit for additional fault indicators	To be completed 2010		]

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Rank       Substation       Circuit       Remedial Action Planned or Taken       Status of RemWork         14       Athens       00514-61       Performance was driven by trees non-preventable during minor storm and lim       Complete	Work Completed e failure. Sep-09	Appeared in 4 of 6 Quarters		
Targeted Mainline Reliability Equipment Replacement         Complete           14         Athens         00514-61         Repair damage from minor storm         Complete	sep-09			
14         Athens         00514-61         Repair damage from minor storm         Complete				
		]		
Repair damage from minor storm Complete		4		
Add additional protection where needed. To be complete		<u> </u>		
Performance was driven by trees non -preventable during minor storm, and	equipment failures.	1		
Engineering review of equipment caused outages Complete	e Mar-09			
Repair damage from minor storm Complete	e Jul-09	10 2009		
15 Madera 00166-22 Targeted Mainline Reliability Equipment Replacement Complete	e Aug-09	20 2009 30 2009		
Reliability Coordinator to inspect circuit based on outage history Complete	Feb-10	40 2009		
Repair conditions found by previous reliability inspection Complete	e Feb-10	10 2010		
Review circuit for additional fault indicators Complete	e May-10	20 2010		
Add additional protection where needed. To be complete	d 2010	1		
Performance was driven by line failure during minor storm and equipment fail	Performance was driven by line failure during minor storm and equipment failure.			
16 Fairview East 00218-34 Repair damage from blown arrester Complete	e Dec-09			
Repair damage from minor storm Complete	e Jun-10	7		
Add additional protection where needed. To be complete	ed 2010	]		
Performance was driven by equipment failure and trees non-preventable duri	ng minor storm.			
Engineering review of full circuit coordination Complete	e Sep-09	10 2009		
Repair non-preventable tree damage from minor storm Complete	e Oct-09	20 2009		
17 Powell Ave 00237-31 Engineering review of overload caused outages for corrective actions Complete	e Dec-09	3Q 2009		
Reliability Coordinator to inspect circuit based on outage history Complete	Feb-10	4Q 2009 1Q 2010		
Repair conditions found by previous reliability inspection Complete	Feb-10	20 2010		
Review circuit for additional fault indicators To be complete	d 2010			
18 Buffalo Road 00580-31 Performance was driven by trees non -preventable during minor storm.				
Repair damage from minor storm Complete	e May-10			

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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
19	Dolling Hoodows	00310-31	Performance was driven by line failure during minor storm.			2Q 2009 3Q 2009
19	Rolling Meadows	00310-31	Repair minor storm damage	Complete	May-10	40 2009
_		Performance was driven by animal contact, line failure and unknown outages.				
20	Shawville	00151-21	Engineering to review unknown outages for possible causes and corrective measures	Complete	Dec-09	30 2009 40 2009
			Reliability Coordinator to inspect circuit based on outage history	Compete	Feb-10	10 2010 20 2010
_			Full cycle tree clearing	To be completed 2010		
_			Performance was driven by non-preventable trees and equipm	nent damage during mi	nor storms.	
	ĺ		Repair damage from minor storm	Complete	Aug-09	20 2009 30 2009
21	Grover	00527-63	Targeted Mainline Reliability Equipment Replacement	Complete	Aug-09	4Q 2009
			Repair damage from minor storm	Complete	Dec-09	1Q 2010 2Q 2010
			Repair damage from minor storm	Complete	Apr-10	202010
~~~~	Saala Laval	00031-11	Performance was driven by wind damage during a minor storr	n and equipment failur	e.	
22	Scalp Level	00031-11	Repair minor storm damage	Complete	Apr-10	1
<u> </u>			Performance was driven by trees non-preventable and wind d damage.	uring minor storm and	vehicle	
			Repair damage from minor storm	Complete	Dec-09	
23	Philipsburg	00161-22	Repair line due to vehicle damage	Complete	Feb-10	
			Repair line due to vehicle damage	Complete	Apr-10	1
			Add additional protection where needed.	To be completed 2010		]
			Performance was driven by non-preventable trees during a mi	inor storm.		3Q 2009
24	Elkland	00625-63	Repaired conductor due to non-preventable tree during minor storm	Complete	Aug-09	4Q 2009 1Q 2010
			Review circuit for additional fault indicators	Complete	Mar-10	20 2010
25	Blairsville East	00082-13	Performance was driven by non-preventable trees during a mi	inor storm and an unkn	own outage.	
23	DIATSYNC LASI	00002-13	Repaired damage from minor storm	Complete	May-10	
			Performance was driven by trees non-preventable during a mi tine failure.	inor storm, equipment	failure and	
26	Boyer	00583-31	Full cycle tree clearing	Complete	Dec-09	
			Repair damage from minor storm	Complete	Jun-10	4
		<u> </u>	Add additional protection where needed.	To be completed 2010		

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work . Completed	Appeared in 4 of 6 Quarters
	Performance was driven by trees non-preventable during minor storm and equipment failure.					1Q 2009 2Q 2009
27	Lake Como	00788-65	Full cycle tree clearing	Complete	Ju⊢09	30 2009
			Repaired damage from minor storm	Complete	Aug-09	4Q 2009 1Q 2010
			Repair equipment failure	Complete	Mar-10	20 2010
28	Curryville	00510-71	Performance was driven by wind damage during minor storm.			
20		00010011	Repair damage from minor storm	Complete	Apr-10	
29	Bay	00911-11	Performance was driven by trees non-preventable and wind da	mage during minor st	orm.	
29		00911-11	Repair damage from minor storm	Complete	Apr-10	
	Performance was driven by equipment failure during minor storm.					
30	Green Garden	00224-31	Repair damage from minor storm	Complete	Dec-09	
			Add additional protection where needed.	To be completed 2010		<u> </u>
			Performance was driven by damage from minor storms and eq	uipment failure.	-	
31	Lowell Avenue	00518-31	Repair damage from minor storm	Complete	Oct-09	
51	Lotton Atomic	00010-01	Repair damage from minor storm	Complete	Dec-09	
			Add additional protection where needed.	To be completed 2010		
32	Edinboro	00421-34	Performance was driven by damage from minor storms and eq	uipment failure.		
JZ		00421-04	Repair damage from minor storm	Complete	May-10	
			Performance was driven by trees non-preventable during mino CPA.	r storm, equipment fa	ilure and	
			Repair damage to line during minor storm	Complete	Aug-09	10 2009
			Engineering review of full circuit coordination	Complete	Sep-09	20 2009
33	Erie South	00259-31	Full cycle tree clearing	Complete	Sep-09	3Q 2009 4Q 2009
		1	Targeted Mainline Reliability Equipment Replacement	Complete	Sep-09	10 2010
			Repair damage from minor storm	Complete	Jun-10	20 2010
			Repair conditions found by previous reliability inspection	Complete	Jun-10	

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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
		9 	Performance was driven by equipment failure and trees non-pr	eventable.		)
34	Blairsville East	00080-13	Repair equipment damage	Complete	Jan-10	
			Targeted Mainline Reliability Equipment Replacement	Complete	Jan-10	
			Performance was driven by trees non-preventable during mino	r storm.		
35	Greenwood	00003-71	Repair damage from minor storm	Complete	Oct-09	
			Review circuit for additional fault indicators	Complete	Apr-10	
			Performance was driven by trees non-preventable, line failure a storm.	and equipment failure	during minor	1Q 2009
36	Marienville	00328-51	Engineering review of full circuit coordination	Complete	Sep-09	20 2009
			Review circuit for fault indicators	Complete	Oct-09	3Q 2009 2Q 2010
			Repair damage from minor storm	Complete	May-10	
			Performance was driven by equipment failure, trees non-preve damage during minor storms.	ntable, animal, lightnir	ng and	10 2009
			Repair damage from minor storm	Complete	May-09	2Q 2009
37	Union City	00206-43	Repair damage from minor storm	Complete	Aug-09	3Q 2009 4Q 2009
			Engineering review of full circuit coordination	Complete	Oct-09	10 2010
			Targeted Mainline Reliability Equipment Replacement	Complete	Nov-09	20 2010
38	French Rd	00550-31	Performance was driven by equipment failure during minor sto			2Q 2009 3Q 2009 4Q 2009
			Repair equipment due to minor storm	Complete	Dec-09	1Q 2010 2Q 2010
39	South Fork	00229-11	Performance was driven by wind damage during minor storm.	<b></b>		
			Repair damage from minor storm	Complete	Apr-10	
-			Performance was driven by trees non-preventable during mino failure and non-preventable trees.	or storm, line failure, e	quipment	
			Targeted Mainline Reliability Equipment Replacement	Complete	Sep-09	10 2009 20 2009
40	DuBois	00137-23	Engineering review of full circuit coordination	Complete	Sep-09	30 2009
			Repaired damage from minor storm	Complete	Oct-09	4Q 2009 1Q 2010 2Q 2010
			Perform mainline reliability inspection	Complete	Dec-09	
			Reliability Coordinator to inspect circuit based on outage history	Complete	Feb-10	

Millcreek       00052-11       Performance was driven by trees non-preventable during minor storm. Repaired damage from minor storm       Complete       Apr-10         41.       Millcreek       00052-11       Performance was driven by trees non-preventable during minor storm. Repaired damage from minor storm       Complete       Apr-10         42       Clearfield       00148-21       Performance was driven by line failure, equipment failure, unknown cause and animal contact. Engineering review of full circuit coordination       Complete       Dct-09       3Q 2009         42       Clearfield       00148-21       Reliability coordinator to inspect circuit based on outage history       Complete       Jan-10       3Q 2009         42       Clearfield       00148-21       Repair conditions found by previous reliability inspection       Complete       Jan-10       3Q 2009         42       Clearfield       00148-21       Perform mainline reliability inspection       Complete       Jan-10       3Q 2009         43       Det Start       Add additional protection where needed.       To be completed 2010       Jun-10       2Q 2010	enelec				criment a though therease		<b>*</b> •				
A1       Mildreek       00052-11       Repaired damage from minor storm       Complete       Apr-10         42       Clearfield       00148-21       Performance was driven by line failure, equipment failure, unknown cause and animal contact. Engineering review of full circuit coordination       Complete       Dec-09       30 2009         42       Clearfield       00148-21       Perform manifine reliability inspection       Complete       Dec-09       30 2009         43       Brady Street       00148-21       Performance was driven by car-pole accident. Targeted Mainline Reliability Equipment Replacement       Complete       Jan-10       20 2019         43       Brady Street       00136-23       Performance was driven by car-pole accident. Repair conditions from CPA       Complete       Feb-10         44       Tunkhannock       00533-65       Performance was driven by tree non-preventable during minor storm, equipment failure and line failure.       10 2009       20 2010         45       Tonesta Switching       0498-51       Performance was driven by lighting damage during minor storm.       10 2009       20 2010         46       Edgewood       00498-51       Performance was driven by lighting damage during minor storm.       Complete       Aug-09       30 2009         47       Alexandrie       00097-82       Performance was driven by lighting damage during minor	Rank	Substation	Circuit	Remedial Action Planned or Taken		Remedial Work	Appeared in 4 of 6 Quarters				
42     Clearfield     Repaired damage from minor storm     Complete     Apr-10       42     Clearfield     Performance was driven by fine failure, equipment failure, unknown cause and anim3 contact. Engineering raview of full circuit coordination     Complete     Dec.499       42     Clearfield     00148-21     Reliability coordinator to inspect circuit based on outage history     Complete     Jan-10     10 2010       43     Brady Street     00138-23     Performance was driven by car-pole accident. Targeted Maintee Reliability Equipment Replacement     Complete     Jun-10       44     Tunkhannock     0053-65     Performance was driven by car-pole accident. Repair damage from toro storm     Complete     Apr-09     30 2009       44     Tunkhannock     0053-65     Performance was driven by tree non-preventable during minor storm, equipment failure and line failure.     Performance was driven by car-pole accident.     10 2009       44     Tunkhannock     0053-65     Performance was driven by tree non-preventable during minor storm, equipment failure and line failure.     10 2009       45     Tunkhannock     Apr-19     10 2010     20 2009       46     Edgewood     00496-51     Iareformance was driven by lightning damage during minor storm. Review circuit for additional fault indicators     To be complete     Jun-10       47     Alexandria     00097-82     Performance was driven by treq non-preventab	41	Nillcreek	00052.11	Performance was driven by trees non-preventable during mine	or storm.						
42     Clearfield     00148-21     Engineering review of full circuit coordination     Complete     Dct-09     30 2009       42     Clearfield     00148-21     Perform mainline reliability inspection     Complete     Jan-10     10 2010       20 2019     Reliability Coordinator to inspect circuit based on outage history     Complete     Jan-10     10 2010       20 2019     Reliability Coordinator to inspect circuit based on outage history     Complete     Jan-10     20 2019       43     Brady Street     00136-23     Performance was driven by car-pole accident.     Complete     Performance was driven by tree non-preventable during minor storm, equipment failure and line failure e.     10 2009       44     Tunkhannock     00533-65     Ful cycle tree clearing     Complete     Apr-09     30 2009       45     Tonesta Switching Station     Quegar dational fault indicators     To be completed 2010     10 2010       46     Edgewood     Quegar dational fault indicators     To be completed 2010     20 2019       47     Alexandria     Quegar dational fault indicators     To be completed 2010     20 2019       47     Alexandria     Quegar dational fault indicators     To be completed 2010     20 2019	717		00032-11	Repaired damage from minor storm	Complete	Apr-10					
42     Clearfield     00148-21     Perform mainine reliability inspection     Complete     Dec.09     30 2009       42     Clearfield     00148-21     Reliability Coordinator to inspect circuit based on outage history     Complete     Jan-10     10 20210       43     Brady Street     00136-23     Performance was driven by car-pole accident.     To be complete     Jun-10     Add additional protection where needed.     To be complete     Jun-10       44     Tunkhannock     00136-23     Performance was driven by car-pole accident.     Complete     Apr-09     30 2009       44     Tunkhannock     00533-65     Repair damage from CPA     Complete     Apr-09     30 2009       45     Tonesta Switching Station     Complete     Jun-10     In 2009     In 2009       45     Tonesta Switching Station     Performance was driven by lightning damage during minor storm.     Complete     Jun-10     10 2009       46     Edgewood     00097-82     Performance was driven by lightning damage during minor storm.     Complete     Aug-09     10 2009       47     Alexandria     00097-82     Performance was driven by equipment failure.     Repair damage from minor storm     Complete     Aug-09     10 2010       47     Alexandria     00097-82     Performance was driven by equipment failure.     Repair damage f				Performance was driven by line failure, equipment failure, unkr	nown cause and anima	l contact.					
42     Clearfield     00148-21     Reliabily Coordinator to inspect circuit based on outage history     Complete     Jan-10     40 2009       42     Reliabily Coordinator to inspect circuit based on outage history     Complete     Jan-10     20 2010       43     Brady Street     00136-23     Repair conditions found by previous reliability inspection     Complete     Jun-10     20 2010       43     Brady Street     00136-23     Performance was driven by car-pole accident.     Repair damage from CPA     Complete     Feb-10       44     Tunkhannock     Performance was driven by tree non-preventable during minor storm, equipment failure and line failure.     In 2009     20 2009       44     Tunkhannock     Performance was driven by tree non-preventable during minor storm, equipment failure and line failure.     10 2009       45     Tunkhannock     Performance was driven by tree non-preventable during minor storm.     Complete     Jun-10       46     Edgewood     Performance was driven by tree non-preventable during minor storm.     In 2009     20 2009       47     Alexandria     0097-82     Performance was driven by tightning damage during minor storm.     In 2009       47     Alexandria     0097-82     Performance was driven by tightning damage during minor storm.     In 2009       48     Edgewood     0097-82     Performance was driven by tree non-preventabl			l	Engineering review of full circuit coordination	Complete	Oct-09	]				
42     Clearning     0014-2-1     Reliability Coordinator to inspect circuit based on outgas history     Complete     Jan-10     10 2010       Repair conditions found by previous reliability inspection     Complete     Jun-10     20 2010       43     Brady Street     00136-23     Performance was driven by car-pole accident.     To be complete     Jun-10     10 2010       43     Brady Street     00136-23     Performance was driven by car-pole accident.     Complete     Feb-10     10 2009       44     Tunkhannock     00533-65     Performance was driven by tree non-preventable during minor storm, equipment failure and line     10 2009     20 2010       44     Tunkhannock     00533-65     Performance was driven by tree non-preventable during minor storm, equipment failure and line     10 2009       45     Tionesta Switching     00498-51     Fell cycle tree clearing     Complete     Jun-09     20 2010       46     Tonesta Switching     00498-51     Targeted Mainline Reliability Equipment Replacement     Complete     Aug-09     20 2010       47     Alexandria     00097-82     Performance was driven by tree non-preventable during minor storm.     Complete     Aug-09     20 2010       47     Alexandria     00097-82     Performance was driven by lighting damage during minor storm.     Complete     Aug-09     20 2010    <				Perform mainline reliability inspection	Complete	Dec-09					
Repair conditions found by previous reliability inspection         Complete         May-10         20 2010           Targeted Mainine Reliability Equipment Replacement         Complete         Jun-10         Jun-10           43         Brady Street         00136-22         Performance was driven by car-pole accident.         To be completed 2010         Feb-10           44         Functional production where needed.         Complete         Feb-10         Feb-10         Feb-10           44         Functional production where needed.         Complete         Apr-09         20 2009         20 2009           44         Functional production where needed.         Complete         Apr-09         20 2009         20 2009         20 2009         20 2009         20 2009         20 2009         20 2009         20 2009         20 2009         20 2009         20 2009         20 2009         20 2009         20 2009         20 2009         20 2009         20 2009         20 2009         20 2009         20 2009         20 2009         20 2009         20 2009         20 2009         20 2009         20 2009         20 2009         20 2009         20 2010         20 2009         20 2010         20 2010         20 2010         20 2009         20 2010         20 2009         20 2009         20 2009         20 2010	42	Clearfield	00148-21	Reliability Coordinator to inspect circuit based on outage history	Complete	.)อก-10					
Add additional protection where needed.       To be completed 2010         43       Brady Street       00136-23       Performance was driven by car-pole accident. Repair damage from CPA       Complete       Feb-10         44       Tunkhannock       00533-65       Performance was driven by tree non-preventable during minor storm, equipment failure and line failure.       10 2009         44       Tunkhannock       00533-65       Performance was driven by tree non-preventable during minor storm, equipment failure and line failure.       10 2009         44       Tunkhannock       00533-65       Performance was driven by tree non-preventable during minor storm, equipment failure and line failure.       10 2009         7       Tonesta Swäching Station       Performance was driven by lightning damage during minor storm.       10 2009         45       Tonesta Swäching Station       00498-51       Performance was driven by lightning damage during minor storm.       10 2009         46       Edgewood       00097-13       Performance was driven by tree non-preventable during minor storm.       10 2009         47       Alexandria       00097-82       Performance was driven by equipment failure.       Performance was driven by equipment failure.         47       Alexandria       00097-82       Performance was driven by equipment failure.       Complete       Ourplete         47       Alexandria<				Repair conditions found by previous reliability inspection	Complete	May-10	1				
43       Brady Street       00136-23       Performance was driven by car-pole accident. Repair damage from CPA       Complete       Feb-10         44       Tunkhannock       00533-65       Performance was driven by tree non-preventable during minor storm, equipment failure and time failure.       10 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2009 20 2000 20 2009 20 2000 20 2009 20 2009 20 2009 20				Targeted Mainline Reliability Equipment Replacement	Complete	Jun-10					
43       Brady Street       00136-23       Repair damage from CPA       Complete       Feb-10         44       Tunkhannock       00533-65       Performance was driven by tree non-preventable during minor storm, equipment failure and line failure.       10 2009         44       Tunkhannock       00533-65       Performance was driven by tree non-preventable during minor storm, equipment failure and line failure.       10 2009         44       Tunkhannock       00533-65       Performance was driven by tree non-preventable during minor storm, equipment failure and line failure.       Apr-09       30 2009         44       Tunkhannock       00533-65       Performance was driven by tree non-preventable during minor storm.       Complete       Apr-09       30 2009         45       Tionesta Switching Station       00498-51       Performance was driven by tightning damage during minor storm.       10 2009       20 2010         46       Edgewood       00097-13       Performance was driven by tree non-preventable during minor storm.       20 2010       20 2010         47       Alexandria       00097-82       Performance was driven by equipment failure.       Repair damage from minor storm       Complete       May-10       20 2010         47       Alexandria       00097-82       Performance was driven by equipment failure.       Repaired equipment damage       Complete <td< td=""><td></td><td></td><td></td><td>Add additional protection where needed.</td><td>To be completed 2010</td><td></td><td></td></td<>				Add additional protection where needed.	To be completed 2010						
44         Repair damage from CPA         Complete         Feb-10           44         Tunkhannock         Performance was driven by tree non-preventable during minor storm, equipment failure and line failure.         10 2009           44         Tunkhannock         Poilos33-65         Performance was driven by tree non-preventable during minor storm, equipment failure and line failure.         10 2009           44         Tunkhannock         Poilos33-65         Performance was driven by tree non-preventable during minor storm, equipment failure and line failure.         10 2009           45         Tunkhannock         Poilos33-65         Performance was driven by lightning damage during minor storm         Complete         May-10         40 2009           45         Tionesta Switching Station         00498-51         Performance was driven by lightning damage during minor storm         Complete         Jun-09         20 2010           46         Edgewood         00097-131         Performance was driven by tree non-preventable during minor storm.         Complete         Sep-09         10 2010           47         Alexandria         00097-82         Performance was driven by equipment failure.         Repair damage         Complete         Oc-09           47         Alexandria         00097-82         Performance was driven by equipment failure.         Repair damage         Complete         Oc-0			00400.00	Performance was driven by car-pole accident.							
44         Tunkhannock         faiture.         10 2009 20 2009 20 2009 30 2009 30 2009 30 2009 30 2009           44         Tunkhannock         00533-65         Full cycle tree clearing         Complete         Apr-09         30 2009 30 2009           44         Tunkhannock         00533-65         Repair damage from minor storm         Complete         May-10         40 2009 40 2010           45         Tionesta Swäching Station         Performance was driven by lightning damage during minor storm.         To be completed 2010         10 2009 20 2010           46         Edgewood         0097-13         Performance was driven by tree non-preventable during minor storm.         Sep-09 10 2010         20 2010           47         Alexandria         00097-82         Performance was driven by equipment failure.         Complete         May-10           47         Alexandria         00097-82         Performance was driven by equipment failure.         Complete         Oct-09 Meview circuit for additional faut indicators         Complete         May-10	43	Brady Street		Repair damage from CPA	Complete	Feb-10					
44     Tunkhannock						storm, equipment fail	ure and line				
44       Tunkhannock       00533-65       Repair damage from minor storm       Complete       May-10       40 2009         1       Targeted Mainline Reliability Equipment Replacement       Complete       Jun-09       20 2010         45       Tionesta Switching Station       00498-51       Repair damage from minor storm       Complete       Jun-10       20 2009         45       Tionesta Switching Station       00498-51       Repair damage from minor storm       Complete       Jun-10       20 2009         46       Edgewood       0097-13       Performance was driven by tree non-preventable during minor storm.       Repair damage from minor storm       Complete       May-10       20 2019         47       Alexandria       0097-82       Performance was driven by equipment failure.       Repair damage       Complete       May-10         47       Alexandria       0097-82       Performance was driven by equipment failure.       Complete       Oct-09         47       Alexandria       00097-82       Performance was driven by equipment failure.       Complete       Oct-09         48       Edgewood       00097-82       Performance was driven by equipment failure.       May-10       May-10         49       Alexandria       00097-82       Repaired equipment damage       Complete				Full cycle tree clearing	Complete	Apr-09					
Air greet Maintain Reliability Equipment Replacement       Complete       Jun-09       20 2010         Review circuit for additional fault indicators       To be completed 2010       10 2009         45       Tionesta Switching Station       00498-51       Performance was driven by lightning damage during minor storm. Repair damage from minor storm       Complete       Jun-10       20 2009         45       Tionesta Switching Station       00498-51       Repair damage from minor storm       Complete       Aug-09       30 2009         46       Edgewood       00097-13       Performance was driven by tree non-preventable during minor storm. Repair damage from minor storm       Complete       May-10       20 2010         47       Alexandria       00097-82       Performance was driven by equipment failure. Repaired equipment damage       Complete       Oct-09         47       Alexandria       00097-82       Performance was driven by equipment failure. Repaired equipment damage       Complete       Oct-09         Review circuit for additional fault indicators       Complete       Oct-09       Review circuit for additional fault indicators       Complete       Oct-09         47       Alexandria       00097-82       Repaired equipment damage       Complete       Oct-09       Apr-10	44	Tunkhannock 00533-6	00533-65	Repair damage from minor storm	Complete	May-10					
Afs       Review circuit for additional fault indicators       To be completed 2010       In 2009         45       Tionesta Switching Station       00498-51       Performance was driven by lightning damage during minor storm. Repair damage from minor storm       Complete       Jun-10       20 2009         45       Targeted Mainline Reliability Equipment Replacement       Complete       Aug-09       40 2009         46       Edgewood       00097-13       Performance was driven by tree non-preventable during minor storm. Repair damage from minor storm       To be completed 2010       20 2010         47       Alexandria       00097-82       Performance was driven by equipment failure. Repaired equipment damage       Complete       Oct-09         47       Alexandria       00097-82       Repaired equipment damage       Complete       Oct-09         Review circuit for additional fault indicators       Complete       Oct-09       Oct-09         47       Alexandria       00097-82       Repaired equipment damage       Complete       Oct-09         Review circuit for additional fault indicators       Complete       Apr-10									Targeted Mainline Reliability Equipment Replacement	Complete	Jun-09
45       Tionesta Switching Station       00498-51       Repair damage from minor storm       Complete       Jun-10       20 2009 30 2009       30 2009 40 2009       30 2009       40 2009       40 2009       40 2009       40 2009       40 2009       40 2009       10 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 2010       20 201				Review circuit for additional fault indicators	To be completed 2010		20 2010				
45       Tionesta Switching Station       00498-51       Targeted Mainline Reliability Equipment Replacement       Complete       Aug-09       40 2009 40 2009         46       Edgewood       00097-13       Performance was driven by tree non-preventable during minor storm. Repair damage from minor storm       Complete       May-10         47       Alexandria       00097-82       Performance was driven by equipment failure. Repaired equipment damage       Complete       Oct-09         47       Alexandria       00097-82       Performance was driven by equipment failure. Repaired equipment damage       Complete       Oct-09         47       Alexandria       00097-82       Performance was driven by equipment failure. Repaired equipment damage       Complete       Oct-09         47       Alexandria       00097-82       Repaired equipment damage       Complete       Apr-10	· · · · · · · · · · · · · · · · · · ·	Ť	••••••••••••••••••••••••••••••••••••••	Performance was driven by lightning damage during minor sto	m.		1Q 2009				
45       Station       00498-51       Targeted Mainline Reliability Equipment Replacement       Complete       Aug-09       40 2009         46       Edgewood       00097-13       Performance was driven by tree non-preventable during minor storm.       To be completed 2010       20 2010         46       Edgewood       00097-13       Performance was driven by tree non-preventable during minor storm.       Repair damage from minor storm       Complete       May-10         47       Alexandria       00097-82       Repaired equipment damage       Complete       Oct-09       Review circuit for additional fault indicators         47       Alexandria       00097-82       Repaired equipment damage       Complete       Oct-09       Apr-10				Repair damage from minor storm	Complete	Jun-10					
Image: heap of the section of the	45	-	00498-51	Targeted Mainline Reliability Equipment Replacement	Complete	Aug-09					
46       Edgewood       00097-13       Performance was driven by tree non-preventable during minor storm. Repair damage from minor storm       Complete       May-10         47       Alexandria       00097-82       Performance was driven by equipment failure. Repaired equipment damage       Complete       May-10				Engineering review of full circuit coordination	Complete	Sep-09					
46     Edgewood     00097-13     Repair damage from minor storm     Complete     May-10       47     Alexandria     00097-82     Performance was driven by equipment failure.       47     Alexandria     00097-82     Repaired equipment damage     Complete     Oct-09       Review circuit for additional fault indicators     Complete     Apr-10				Review circuit for additional fault indicators	To be completed 2010		20 2010				
47     Alexandria     00097-82     Performance was driven by equipment failure.       Repaired equipment damage     Complete     Oct-09       Review circuit for additional fault indicators     Complete     Apr-10		Edagwood	00007 43	Performance was driven by tree non-preventable during minor	storm.						
47     Alexandria     00097-82     Repaired equipment damage     Complete     Oct-09       Review circuit for additional fault indicators     Complete     Apr-10	40		00097-13	Repair damage from minor storm	Complete	May-10					
47 Alexandria 00097-82 Review circuit for additional fault indicators Complete Apr-10				Performance was driven by equipment failure.							
Review circuit for additional fault indicators Complete Apr-10	47	Alexandria	00007 80	Repaired equipment damage	Complete	Oct-09					
Targeted Mainline Reliability Equipment Replacement Complete Mar-20	÷f	AICABITOTIS	00081-0Z	Review circuit for additional fault indicators	Complete	Apr-10	]				
				Targeted Mainline Reliability Equipment Replacement	Complete	Mar-20	]				

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters
			Performance was driven by lightning damage and equipment fa	ilure.		1Q 2009 2Q 2009
48	Two Mile	00127-42	Engineering review of full circuit coordination	Complete	Sep-09	3Q 2009 4Q 2009
			Repaired equipment damage	Complete	May-10	20 2010
49	Erie South	00312-31	Performance was driven by CPA, unknown cause and line failur	е.		
43		00312-01	Repair damage from CPA	Complete	Sep-09	
• • •			Performance was driven by equipment and line failure.			
50	Roxbury	00138-83	Repair equipment failure	Complete	Feb-10	
			Full Cycle Tree Clearing	To be completed 2011		
51	Millcreek	00219-11	Performance was driven by trees non-preventable and wind da	mage during minor st	orm.	
15	IN NICI CEK	00215-11	Repair damage from minor storm	Complete	Apr-10	
			Performance was driven by lightning damage and line failure du	ring minor storm.		
			Full cycle tree clearing	Complete	Jun-09	
52	Lake Como	00787-65	Engineering review of full circuit coordination	Complete	Sep-09	-
			Targeted Mainline Reliability Equipment Replacement	Complete	Dec-09	e.
			Repaired minor storm damage	Complete	May-10	
			Performance was driven by trees non-preventable and equipm CPA.	ent failure during mind	or storms and	
			Repair damage from minor storm	Complete	Aug-09	
53	Eagles Mere	00686-62	Repair damage from minor storm	Complete	Dec-09	
			Repair damage from CPA	Complete	Dec-09	
			Repair damage from minor storm	Complete	May-10	
	 		Review circuit for additional fault indicators	Complete	Mar-10	
			Performance was driven by trees non-preventable during mino			
54	Lewis Run	00409-42	Repair damage from minor storm	Complete	Oct-09	
			Repair damage from minor storm	Complete	Jun-10	
55	St Benedict	00057-72	Performance was driven by non-preventable trees and line faile	· · · ·		
			Repair damage from minor storm	Complete	Jun-10	

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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	
56	Timblen	00103-23	Performance was driven by non-preventable trees and equipm	ent failure during mind	or storm.		
			Repair damage from minor storm	Complete			
			Performance was driven by line and equipment failure and equi	pment failure during n	ninor storm.		
			Full cycle tree clearing	Complete	90-nuL	20.2000	
			Engineering review of full circuit coordination	Complete	Aug-09	2Q 2009 3Q 2009	
57	Erie East	00234-31	Repaired equipment from minor storm damage	Complete	Dec-09	4Q 2009	
			Reliability Coordinator to inspect circuit based on outage history	Complete	Feb-10	1Q 2010 2Q 2010	
			Add additional protection where needed.	To be completed 2010		202010	
			Review circuit for additional fault indicators	To be completed 2010			
			Performance was driven by line failure and unknown cause.				
	Walnut Street		Full cycle tree clearing	Complete	Aug-09	10 2009	
<del>5</del> 8		Inut Street 00520-31	Engineering to review unknown outages for possible causes and corrective measures	Complete	Dec-09	2Q 2009 3Q 2009	
				Reliability Coordinator to inspect circuit based on outage history	Complete	Feb-10	4Q 2009 1Q 2010
			Repair conditions found by previous reliability inspection	Complete	Feb-10	20 2010	
			Performance was driven by trees non-preventable during mino	r storm, equipment ar	nd line failure.		
59	Greenwood	00041-71	Repair damage during minor storm	Complete	Oct-09	1	
			Repair line failure	Complete	Jan-10	1	
			Performance was driven by lightning and equipment failure du	ing minor storm.			
			Performed mainline reliability inspection	Complete	Mar-09	]	
			Repaired damage from lightning	Complete		20 2009	
	Philipsburg	00164-22	Repaired equipment from minor storm damage	Complete	Dec-09	3Q 2009	
	rnapsburg	0010+22	Reliability Coordinator to inspect circuit based on outage history	Complete	Feb-10	4Q 2009	
			Repair conditions found by previous reliability inspection	Complete	May-10	1Q 2010	
			Full Cycle Tree Clearing	To be completed 2010			
			Targeted Mainline Reliability Equipment Replacement	To be completed 2010			
			Performance was driven by equipment failure and line failure.				
	Port Allegany	00151-42	Repair line failure	Completed	Jan-10	]	
	гон Анедану		Full cycle tree clearing	To be completed 2010			

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters			
			Performance was driven by trees non-preventable, unknown c minor storms and line failure.	ause and equipment fa	uilure during				
		ļ	Repaired damage from minor storm	Complete	May-09				
			Repaired damage from minor storm	Complete	Aug-09				
	Knox	00323-51	Repaired damage from minor storm	Complete	Dec-09				
			Engineering to review unknown outages for possible causes and corrective measures	Complete	Dec-09				
			Reliability Coordinator to inspect circuit based on outage history	Complete	Feb-10				
			Full Cycle Tree Clearing	To be completed 2010					
						Performance was driven by non-preventable tree during minor	storms and an unknow	wn cause.	
			Repair damage from minor storm	Complete	Aug-09				
	Mercer Pike	00474-52	Repair damage from minor storm	Complete	Dec-09	ĥ			
			Full cycle tree clearing	To be completed 2010					
			Review circuit for additional fault indicators	Complete	Apr-10				
			Performance was driven by equipment failure, non-preventable animal contact.	e tree during minor sto	erm and				
			Repair equipment failure	Complete	Apr-09				
	N Meshoppen Tran	00530-65	Repair equipment failure due to animal contact	Complete	May-09	с •			
			Repair minor storm damage	Complete	Jun-09	-			
			Repair UG equipment failure	Complete	Jan-10				
			Targeted Mainline Reliability Equipment Replacement	To be completed 2010					
			Performance was driven by unknown cause during minor stor	n					
	10 <sup>th</sup> Deed	00500 04	Switching completed to restore customers	Complete	Aug-09				
	Mill Road	Mill Road   00588-31	Full cycle tree clearing	To be completed 2010					
			Review circuit for additional fault indicators	To be completed 2010					
		•	· · · · · · · · · · · · · · · · · · ·	·		· · · · · · · · · · · · · · · · · · ·			

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters		
	[		Performance was driven by a wind storm which were non-preventable tree cause outages (69% of minutes).					
			Crossarm and arrestor repairs	Complete	Ju⊢09			
			Comprehensive Tree Trimming	Complete	Mar-09	1Q 2009		
1	Yorkana	00708-4	Installed additional fault indicators	Complete	Dec-09	2Q 2009		
•	- Orkana	00100-4	Perform accelerated circuit three-phase backbone assessment after wind storm	Complete	Feb-10	10 2010		
			Perform accelerated assessemnt on the curcuit backbone and three-phase of the circuit after a major hail storm	Completed	May-10	20 2010		
			Repair critical items identified from backbone assessment after wind storm	To be completed in 2010				
			Performance was driven by trees non-preventable primarily occuring during a small	l storm on June 24 to 25	i, 2010.			
			Crossarm and guy wire repairs	Complete	May-09	10 2009		
			Perform fault current indicator installation Engineering study	Complete	Oct-09	2Q 2009		
Z	Birdsboro	00756-1	Install fault current indicators at six locations	Complete	Dec-09	3Q 2009 4Q 2009		
			Perform accelerated backbone assessment	Complete	Mar-10	10 2010		
			Perform accelerated three-phase assessment	Complete	Mar-10	20 2010		
			Forestry to perform on cycle comprehensive circuit tree trimming	Complete	Ju⊢10			
			Performance was driven by non-preventable trees and vehicle related outages.			1Q 2009 2Q 2009		
_	No Bangor	No Departs	No Bangor 00826-3	No. 70	Overloaded fuses replacement	Complete	Feb-09	30,2009
3		angor 00826-3		Perform accelerated backbone assessment	Complete	Mar-10	40 2009	
			Perform accelerated three-phase assessment	Complete	Mar-10	10 2010		
			Forestry to perform on cycle comprehensive circuit Tree Trimming	Complete	Jun-10	2Q 2010		
			Performance was driven by non-preventable tree cause outages (75% of minutes).					
			2009 vegetation management - condition based	Complete	Feb-09			
			Repair critical items identified from comprehensive circuit patrol	Complete	Sep-09			
			Install 5 additional sectionalizing switches	Complete	Nov-09			
			Repair critical items identified from backbone assessment	Complete	Dec-09			
			Install additional fuses to protect the circuit backbone	Complete	Dec-09	3Q 2009		
4	Yorkana	00715-4	Perform danger tree removal on the tree problem areas of the circuit	Complete	Dec-09	4Q 2009		
-			Installed additional fault indicators	Complete	Dec-09	10 2010		
			Perform accelerated assessment on the circuit backbone including all three and single phases			2Q 2010		
			of the circuit after a major hail storm.	Complete	May-10			
			Perform accelerated circuit three phase backbone assessemnt and record the locations of all splices	Complete	Jul-10			
			Install three radio controlled switches with fault indicators	To be completed in 2010				
			Perform thermal scan of all splices on the circuit three-phase backbone	To be completed in 2010				

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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	
	ĺ		Performance was driven by non-preventable tree caused outages (85% of minutes).				
			Perform accelerated circuit three phase-backbone assessment	Complete	Feb-09	10 2009	
			Perform tree patrol on the tree problem areas of the circuit	Complete	Apr-09	20 2009	
5	Newberry	00576-4	Perform line patrol of high line failure area of the circuit	Complete	Dec-09	30 2009	
Ū.	lionoony	000.01	Repair critical items identified from the backbone assessment	Complete	Dec-09	4Q 2009	
			Forestry to perform on cycle comprehensive circuit tree trimming	Complete	Mar-10	10 2010	
			Perform accelerated assessement on the circuit backbone, three-phases of the circuit and a portion of the single phase	Complete	Jun-10	20 2010	
			Performance was driven by three tree-caused outages, an outage caused by a main by a squirrel contact in Birdsboro Substation and a car-pole accident.	line switch problem, an	outage caused		
6	Birdsborp	00757-1	Install additional tap fuse	Complete	Dec-09		
Ð	Birdsborb	00/5/-1	Perform accelerated backbone assessment	Complete	Mar-10		
			Perform accelerated three-phase assessment	Complete	Mar-10		
			Comprehensive tree trimming	Complete	յու-10		
			Performance was driven by switch (cutout) equipment failure and an animal caused	substation outage.		c	
			Perform accelerated three phase and backbone assessment	Complete	Dec-09		
		on 00153-1	Replace Switch T1-156 w/ 600 A Disc.	Complete	Jan-10		
7	19th and Cotton		Replace Switch T3-153 w/ 600 A Disc.	Complete	Jan-10	, <b>*</b>	
ſ	rem and couon	00133-1	Replace Switch 15336 w/ 600 A Disc.	Complete	Jan-10		
				Replace Switch T1-153 w/ 600 A Disc.	Complete	Jan-10	<i>*</i> .
				Replace Switches 13629 & 13659 w/ 600 A Disc.	Complete	Jan-10	
			Install fuse bypass switch	To be completed in 2010			
			Performance was driven by single storm and access/traffic issues.			1Q 2009	
			Review additional main line tap fusing	Complete	Feb-09	2Q 2009 3Q 2009	
8	Walker	00865-3	Study circuit configuration	Complete	Aug-09	40 2009	
			Study primary customer tap fusing	Complete	Aug-09	10 2010	
			Perform accelerated three-phase and backbone assessment	Complete	Jan-10	20 2010	
			Performance was driven by tree caused outages, car pole outages, wind damage, a	step bank failure and c	onductor failure.		
			Accelerated circuit assessment three-phase	Complete	May-10		
9	Annville	00742-2	Post storm assessment due to excessive damage	Complete	Jun-10		
	}		Install GOAB to sectionalize	To be completed in 2010			
			Comprehensive tree trimming	To be completed in 2011			
			Performance was driven by tree caused outages and pole failures.				
10	North Cornwall	00610-2	Accelerated circuit assessment three-phase	Complete	Jun-10		
10		00010-2	Install mainline three-phase switch	To be completed in 2010			
			Replace solids with fuses and move four spans upstream	To be completed in 2010			

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters	
			Performance was driven by tree caused outages, UG conductor failures and a reclosed	ser failure.			
			Install animal protection mainline recloser	Complete	Feb-09	10 2009	
			Replace lightning arrestors	Complete	90-nuL	2Q 2009	
11	North Lebanon	00712-2	Install additional mainline switch	Complete	Ju⊢09	30 2009	
11	North Lebanon	00712-2	Comprehensive tree trimming	Complete	Nov-09	4Q 2009	
			Accelerated circuit assessment three-phase	Complete	Apr-10	10 2010	
			Reconfigure circuit/minimize exposure	Complete	Apr-10	20 2010	
			Install fuses four locations	To be completed in 2010			
			Performance was driven by two storm events (82% of minutes). 68% of the storm moutage.	inutes was due to a bro	oken pole caused		
			Perform accelerated circuit three-phase assessment	Complete	Jan-09		
12	Windsor	00795-4	2009 vegetation management - condition based	Complete	Mar-09		
12		00100-4	Perform accelerated circuit three-phase backbone assessment	Complete	Oct-09	•	
			Install additional fuses to protect the circuit backbone	Complete	Dec-09	بم	
			Perform accelerated circuit three-phase backbone assessment after wind storm	Complete	10		
			Investigate additional fault indicators	To be completed in 2010		4	
				Performance was driven by tree caused outages, wind damage, UG cable failures ar	nd lightning damage		
			Forestry to perform mid-cycle assessment of three-phase backbone	Complete	Dec-09		
13	Campbelltown	amphallown 00731.2	town 00731-2	Replace UG cable along Gentry Drive	Complete	Јал-10	
1.3	Campbellown	00131-2	Accelerated circuit assessment three-phase	Complete	May-10	-	
•			Post storm assessment due to excessive damage	Complete	Jun–10		
				Forestry to perform mid-cycle assessment of remaining three-phase	To be completed in 2010		
			Performance was driven by overload, non-preventable tree and equipment related	outages.		1Q 2009	
			Circuit automation (radio controlled equipment)	Complete	Jun-09	2Q 2009	
14	Fox Hill	00816-3	Study additional backbone protection	Complete	Aug-09	3Q 2009	
			Perform accelerated backbone assessment	Complete	Mar-10	40 2009	
			Perform accelerated three-phase assessment	Complete	Mar-10	2Q 2010	
		<del></del>	Performance was driven by lightning as cause at 46% of minutes and trees at 36% of 6/12/10 and 6/24/10 storms.	f minutes. 67% of circui	t minutes from		
	ļ		Complete five misc items found during assessment patrols	Complete	May-09		
			Replace one pole, one crossarm, and repair one misc item identified during patrols	Complete	Apr-10		
15	Allen	00503-4	Perform accelerated circuit reliability assessment of three phase - no Priority 1 Findings	Complete	Jun-10		
. –			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	Jul-10		
			Forestry perform off cycle trim (ytd)	Complete	Jul-10		
			Replace one crossarm and one other item identified during patrols (ytd)	Complete	Ju⊢10		
			Forestry to perform on cycle comprehensive circuit tree trim	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	
			Performance was driven by a pole failure, a cross arm failure and tree caused dama	pole failure, a cross arm failure and tree caused damage.			
16	Grantville	00721-2	Install New Recloser and remove existing recloser	To be completed in 2010			
~~	Cromin Parce	001212	Accelerated circuit assessment 3 phase	To be completed in 2010			
			Comprehensive tree trimming	Complete	Nav-09		
			Performance was driven by ice and equipment failure.			10 2009	
ļ		l	Install SCADA and radio controls	Complete	Feb-09	20 2009	
17	Shawnee	00822-3	Repair critical items identified from backbone assessment and circuit patrol	Complete	Sep-09	30 2009	
14	Shawinee	00022-3	Perform accelerated backbone assessment	Complete	Jan-10	40 2009	
			Perform accelerated three phase assessment	Complete	Jan-10		
			Install fault Indicators	Complete	Apr-10	20 2010	
			Performance was driven by trees non-preventable (70%) and a forced outage due to	a car pole accident (179	6).		
			Comprehensive tree trimming	Complete	Mar-09		
			Install main-line tap fuses	Complete	Jun-09	x-08 10 2009 >-09 >-09 >-09 -09 -10 -10 -10 -10 -10 -10 -10 -10	
18	Barto	00706-1	Crossarm, insulator and arrestor repairs	Complete	Feb-10		
10	Бапо	00706-1	Perform accelerated backbone assessment	Complete	Mar-10		
			Perform accelerated three phase assessment	Complete	Mar-10		
			Perform fault current indicator installation Engineering study	Complete	Mar-10		
			Install fault current indicators at ten locations	Complete	May-10		
			Performance was driven by tree as cause at 87% of minutes and 33% of circuit minu incident.	tes from the 10/7/09 tree	e on mainline	Ť	
			Replace 2 crossarms, 3 bell insulators, and 3 cutouts found during Line patrol	Complete	May-09		
			Perform accelerated circuit reliability assessment of mainline- No Priority 1 findings	Complete	Oct-09		
19	Dillsburg	Dillsburg 00746-4	Perform accelerated circuit reliability assessment of three phase- No Priority 1 findings	Complete	Dec-09		
			Replace 3 insulators and 1 misc item found during Line patrol	Complete	Jan-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	Apr-10		
_		ļ	Forestry to perform on cycle comprehensive circuit tree trim in 2010	To be completed 2010			
			Performance was driven by an outage caused by a wire down in off-road area, four t caused by vehicle accidents and a terminator failure on the get-away riser pole.	tree-caused outages, tv	vo outages		
			Replace terminators on the get-away riser pole.	Complete	Mar-09	1	
			Install additional tap fuses	Complete	Dec-09		
20	Flying Hills	00777-1	Upgrade fuses to improve tie capability	Complete	Dec-09		
			Install additional mainline disconnects	Complete	Dec-09		
			Crossarm brace/ground/guy wire repairs	Complete	Dec-09		
			Perform accelerated backbone assessment	Complete	Apr-10		
			Perform accelerated three phase assessment	Complete	Apr-10		

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters
			Performance was driven by tree related outages and loss of supply from JCP&L			30 2009
21	Bridgeton Hill	00117-3	Perform accelerated three-phase and backbone assessment	Complete	e0.4uL	10 2010
			Comprehensive tree trimming	Complete	Dec-09	2Q 2010
			Performance was driven by tree as cause at 59% of circuit minutes, line failure at 16 at 13% of circuit minutes. 23% of circuit minutes by trees in the 6/24/10 storm, 12% o on 8/14/09 and 11% of minutes by line failure during August '09 storms.			
22	Allen	00502-4	Perform accelerated circuit reliability assessment of three phase	Complete	Apr-10	
			Perform accelerated circuit reliability assessment of mainline	Complete	Apr-10	
			Replace two crossarms and one other item identified during line patrol	Complete	May-10	
			Forestry to perform on cycle comprehensive circuit tree trim in 2011	To be completed 2011		
			Performance was driven by tree caused outages and cutout failures.	1		3
			Accelerated circuit assessment three-phase	Competed	Jul-09     1Q 2009       Jul-09     1Q 2010       Dec-09     2Q 2010       nd vehicle contact     2Q 2010       Apr-10     Apr-10       Apr-10     May-10       Jun-10     Jun-10       Jul-09     Jul-10       Jul-10     Jul-10       Jul-09     Jul-10       Jun-09     Jun-09       Jun-09     Sep-09	
23	Annville	00743-2	Post storm assessment due to excessive damage	Complete		
			Forestry patrol of backbone and all of three-phase along Lancaster Ave	To be completed in 2010		
			Comprehensive tree trimming	To be completed in 2011		
			Performance was driven by insulator equipment failure (59%) and failed CLFs (21%).		+	
			Comprehensive tree trimming	Complete	e04uL	1
24	Shawnee	00860-3	Perform accelerated three phase assessment	Complete		
24	SHAWIICC	00000-3	Repair items identified from three-phase assessment	Complete	Feb-10	
			Install radio control communication equipment on sectionalizer	Complete	Jul-10	:
			Perform fuse and coordination study	To be completed in 2010		
			Performance was driven by two mainline spacer cable failures at 78% of minutes an 63% of total minutes from the June 27 mainline spacer failure.	d equipment failures at	12% of minutes.	
		1	Install additional fusing 11 locations and changed fuses four other locations	Complete	e0-nut	
25	Roundtop	00583-4	Install seven fault indicators various locations	Complete	90-nut	
			Replace one pole, two crossarms and two misc items found during line patrol	Complete	Sep-09	
			Replace two crossarms and three misc items found during line patrol	Complete	Jun-10	
			Perform accelerated circuit reliability assessment of mainline	Complete	Oct-09	
			Performance was driven by a wind storm which were non-preventable tree cause of	outages (87% of minutes	s)	
26	Pleasureville	00710-4	Perform accelerated assessement on the circuit backbone and three-phases of the circuit	Complete	Jui-10	
			Forestry to perform on cycle comprehensive circuit tree trimming	To be completed in 2010		

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Ranƙ	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters
27	Newberry	00586-4	Performance was driven by a vehicle caused outage during a wind storm (73% of mi cause outages (23% of minutes).	nutes) and by non-prev	ventable tree	
			Forestry to perform on cycle comprehensive circuit tree trimming	Completed	Jun-10	
			Performance was driven by tree contacts and equipment failure related outages.	<u></u>	- <b>!</b>	20 2009
			Forestry patrol of lockout zone	Complete	Jul-09	30 2009
28	Shawnee	00837-3	Repair critical items identified from backbone assessment & circuit patrol	Complete	Apr-09	4Q 2009
			Install radio control communication equipment and automation	Complete	Dec-09	
		ł	Perform accelerated three phase and backbone assessment	Complete	Jan-10	2Q 2010
			Performance was driven by four large tree problems, insulator problem which caus safely during rainy weather, multiple UG outages and an outage caused by a transmi	ssion line falling on the	e Distribution line.	Appeared in 4 of 6 Quarters 2 Q 2009 3 Q 2009 4 Q 2009 1 Q 2010 2 Q 2010 air e. 
			Replace lightning arresters at four locations	Complete		
			Pole Replacement one location	Complete		
29	Bernville	00787-1	Replace crossarms - four locations	Complete		
			Install three fuses to prevent circuit lockout	Complete		I
			Install fault indicators (five underground locations)	Complete	· ·	
			Install fault indicators (ten mainline locations)	Complete		
			Comprehensive tree trimming	Complete		4 14
=	ļ		Perform accelerated three-phase and backbone assessment	Complete	Mar-10	<u>7.</u>
			Performance was driven by wind storm as cause at 88% of circuit minutes, which fe	lled 7 poles.	·· ··	
30	N Hanover	00514-4	Perform accelerated circuit reliability assessment of three phase	Complete	Dec-09	ribution line. Jun-09 Jun-09 May-09 Sept-09 Dec-09 Dec-09 Mar-10 Dec-09 Oct-09 Mar-10
			Perform accelerated circuit reliability assessment of mainline	Complete	Oct-09	
			Replace one cutout found during line patrol	Complete	Mar-10	
			Performance was driven by wind damage and tree caused outages.			
31	Campbelltown	00634-2	Post storm assessment due to excessive damage	Complete	Jun-10	3Q 2009 4Q 2009 1Q 2010 2Q 2010 air e.
			Accelerated circuit assessment 3 phase	Complete	May-10	
			Performance was driven by trees non-preventable (55%), primarily during two small 13-14, 2010) and by a circuit breaker failure (25%).	storms (February 10-1	1, 2010 and March	
	]		Comprehensive Tree Trimming	Complete	Mar-09	
			Crossarm Brace Repair	Complete	Mar-09	
32	Barto	00705-1	Install Main-line Tap fuses	Complete	<b>60</b> -luL	
			Perform accelerated backbone assessment	Complete	Mar-10	
			Perform accelerated three phase assessment	Complete	Mar-10	
	l		Perform Fault Current Indicator Installation Engineering Study	Complete	Mar-10	
			Install Fault Current Indicators at seven locations	Complete	May-10	

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters
			Performance was driven by vehicle contacts (11) as cause at 58% of circuit minutes, equipment failure at 16% of minutes. 48% of minutes from the 12/27/09 vehicle conta failure on September 26, 2009.			
33	Gardners	00750-4	Perform accelerated circuit reliability assessment of three phase	Complete	Feb-10	
33	Garaners	00130-4	Perform accelerated circuit reliability assessment of mainline	Complete	Feb-10	
		]	Install animal guarding one location	Complete	Feb-10	
		,,,	Forestry to perform on cycle comprehensive circuit tree trimming in 2011, evaluating for spot trimming in 2010	To be completed 2011		
			Performance was driven by two equipment problems, two line problems, animal an	d tree caused outages.		
			Replace lightning arresters, crossarms and crossarm brace	Complete	May-09	2Q 2009 3Q 2009 4Q 2009 2Q 2010
			Pole replacements	Complete	May-09	
			Install fault indicators (five mainline switch locations)	Complete	May-09	
34	Bernville	00786-1	Perform accelerated three-phase and backbone assessment	Complete	Oct-09	
			Guy wire repairs	Complete	Dec-09	
			Comprehensive tree trimming	Complete	Dec-09	
			Install fault indicators at existing mainline switch	Complete	Feb-10	
			Perform accelerated backbone assessment	Complete	Mar-10	
			Perform accelerated three phase assessment	Complete	Mar-10	
35	Hill	00736-4	Circuit performance was driven by two wind storm events (94% of minutes). 100% o caused outages.	of the storm minutes w	ere broken pole	
			Inspect remaining poles in lock out zone	To be completed in 2010		
			Performance was driven by tree as cause at 84% of circuit minutes and a forced out circuit minutes from the 10/7/09 tree on line incident.	age at 9% of circuit min	ites. 81% of	
			Perform accelerated circuit reliability assessment of mainline	Complete	May-09	
			Repaired one Priority 1 finding on mainline	Complete	May-09	10 2009
			Animal guard recloser	Complete	Oct-09           Dec-09           Dec-09           Feb-10           Mar-10           Mar-10           were broken pole           inutes. 81% of           May-09           May-09           Sep-09	20 2009
36	Dillsburg	00749-4		Complete	Sep-09	30 2009 40 2009
			Installed additional fusing or recoordinated fusing at 3 locations	Complete	Sep-09	10 2010
			Perform accelerated circuit reliability assessment of three phase	Complete	Jun-10	20 2010
			Perform accelerated circuit reliability assessment of mainline	Complete	Jun-10	
			Perform accelerated circuit reliability assessment of single phase	Complete	Apr-10	
			Forestry to perform on cycle comprehensive circuit Tree Trim in 2010	To be completed 2010		
			Performance was driven by trees non-preventable (56%), and company human erro during trimming cycle (20%).	r when tree was dropp	ed into the circuit	
37	Birdsboro	00759-1	Perform accelerated backbone assessment	Complete	Mar-10	
			Perform accelerated three phase assessment	Complete	Mar-10	
	1		Comprehensive tree trimming	Complete	Feb-10	1

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters
			Performance was driven by vehicle contact cause outages (51% of minutes) and wit for 57% of those minutes and by line failure outages (44% of minutes).	h one vehicle caused ou	itage accounting	
			Install additional fuses to protect the circuit main three phase		Mar-09	2Q 2009
			Perform accelerated circuit three-phase backbone assessment	Complete	Mar-09	30 2009
	Taxville	00575-4	Perform accelerated circuit main three-phase assessment	Complete	May-09	40 2009
			Repair critical items identified from backbone assessment	Complete	Un_09	10 2010
			Forestry to perform on cycle comprehensive circuit tree trimming	Complete	Oct-09	
			Perform accelerated three-phase and backbone assessment	Complete	Feb-10	
	Birchwood	00622-3	Performance was driven by non-preventable tree, animal contact and wind related o	utages.		10 2009 20 2009 30 2009
			Study further backbone protection	Complete	Aug-09	40 2009
			Perform accelerated three-phase and backbone assessment	Complete	Mar-10	10 2010
			Performance was driven by company human error during tree trimming (47%) and t	rees non preventable (3	2%).	
		ing Rocks 00708-1	Crossarm and arrestor repairs	Complete	Jul-09	2Q 2009 3Q 2009 4Q 2009
	Ringing Rocks		Comprehensive tree trimming	Complete	e0-luL	
			Perform accelerated backbone assessment.	Complete	Mar-10	10 2010
			Perform accelerated three-phase assessment.	Complete	Mar-10	142010
			Performance was driven by single minor storm (81%).			
			Install mainline tap fuses	Complete	Jun-09	
			Perform fault current indicator installation Engineering study	Complete	Oct-09	2Q 2009
	Pine Lane	00713-1	Install fault current indicators at ten locations	Complete	Dec-09	3Q 2009
		00110-1	Perform accelerated backbone assessment	Complete	Mar-10	4Q 2009
			Perform accelerated three phase assessment	Complete	Mar-10	1Q 2010
			Forestry to perform on cycle comprehensive circuit Tree Trimming in 2011, evaluating for spot trimming in 2010	To be Completed in 2011		
			Performance was driven by single minor storm (51%).			
			Arrester repair	Complete	Jun-09	
		Install mainline tap fuses	Install mainline tap fuses	Complete	Jun-09	
			Perform fault current indicator installation engineering study	Complete	Oct-09	20 2009
	Pine Lane	ine Lane 00720-1	Install fault current indicators at ten locations	Complete	Dec-09	3Q 2009 4Q 2009
			Perform accelerated backbone assessment	Complete	Mar-10	
			Perform accelerated three-phase assessment	Complete	Mar-10	10 2010
			Install recloser	To be Completed in 2010		
			Forestry to perform on cycle comprehensive circuit tree trimming in 2011, evaluating for spot trimming in 2010	To be Completed in 2011		

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in of 6 Quarters	
			Performance was driven by trees as cause at 61% of circuit minutes and related equ minutes. At least 44% of circuit minutes were directly attributed to trees in the radia Forest area.	•	- 1		
			Perform accelerated circuit reliability assessment including Pine Grove Rd	Complete	Feb-09		
			Install digital recording ammeters on Pine Grove Road and study Winter loading	Complete	Mar-09		
			Installed 3 phase fault indicators 2 locations	Complete	Mar-09		
			Forestry patrol Pine Grove Road	Complete	Apr-09	10 2009	
	Mountain	00744_4	Forestry off cycle trim Pine Grove Rd & State Forest area, removed 11 trees and spot trimmed multiple locations	Complete	Apr-09	20,2009 30,2009 40,2009	
			Replaced 5 poles, 10 crossarms, and 6 other items found during patrol	Complete	<b>60-</b> nuL	10 2010	
			Engineering study to Install additional fault indicators	Complete	Oct-09	14 2010	
			Install fault indicators 12 locations	Complete	Nov-09		
			Forestry to perform on cycle comprehensive circuit Tree Trimming	Complete	Mar-10		
			Perform accelerated circuit reliability assessment of mainline - No Priority1 findings	Complete	Mar-10		
			Perform accelerated circuit reliability assessment of three phase - No Priority 1 findings	Complete	Mar-10		
			Replaced 2 poles and 2 insulators identified on patrol (ytd)	Complete	Mar-10		
			Performance was driven by vehicle contacts (13) as cause at 65% of circuit minutes and trees at 26% of minutes. 19% of minutes from tree trouble during the Jan 7,2009 ice storm and 25% of minutes from one vehicle contact on Feb 3, 2009.				
			Perform mainline Forestry Patrol as follow-up to 1/7/09 ice storm	Complete	Jan-09	1Q 2009 2Q 2009	
	Gardners	00752-4	Perform hot spot pine tree removals on mainline near Gardners sub	Complete	Jan-09	3Q 2009 4Q 2009 1Q 2010	
			Perform accelerated circuit reliability assessment of three phase	Complete	Apr-09		
			Perform accelerated circuit reliability assessment of mainline	Complete	Sep-09		
			Perform accelerated circuit readanty assessment of marinate	complete	3ep-09	10 2010	
			Forestry to perform on cycle comprehensive circuit Tree Trimming in 2011, evaluating for spot trimming in 2010	To be completed in 2011	360-03	10 2010	
			Forestry to perform on cycle comprehensive circuit Tree Trimming in 2011, evaluating for spot	•	365-03	10 2010	
			Forestry to perform on cycle comprehensive circuit Tree Trimming in 2011, evaluating for spot trimming in 2010	•	Jun-09	10 2010	
			Forestry to perform on cycle comprehensive circuit Tree Trimming in 2011, evaluating for spot trimming in 2010 Performance was driven by two equipment failures and one animal outage.	To be completed in 2011			
	River View Sub	00793-1	Forestry to perform on cycle comprehensive circuit Tree Trimming in 2011, evaluating for spot trimming in 2010 Performance was driven by two equipment failures and one animal outage. Comprehensive tree trimming	To be completed in 2011 Complete	Jun-09	1Q 2009	
	River View Sub	00793-1	Forestry to perform on cycle comprehensive circuit Tree Trimming in 2011, evaluating for spot trimming in 2010 Performance was driven by two equipment failures and one animal outage. Comprehensive tree trimming Install fault indicators at two existing switch locations	To be completed in 2011 Complete Complete	e0-nuL e0-nuL	1Q 2009 2Q 2009 3Q 2009 4Q 2009	
	River View Sub	00793-1	Forestry to perform on cycle comprehensive circuit Tree Trimming in 2011, evaluating for spot trimming in 2010 Performance was driven by two equipment failures and one animal outage. Comprehensive tree trimming Install fault indicators at two existing switch locations Pole repair/replace	To be completed in 2011 Complete Complete Complete	Jun-09 Jun-09 Dec-09	1Q 2009 2Q 2009 3Q 2009	
	River View Sub	00793-1	Forestry to perform on cycle comprehensive circuit Tree Trimming in 2011, evaluating for spot trimming in 2010 Performance was driven by two equipment failures and one animal outage. Comprehensive tree trimming Install fault indicators at two existing switch locations Pole repair/replace Additional fusing	To be completed in 2011 Complete Complete Complete Complete	Jun-09 Jun-09 Dec-09 Dec-09	1Q 2009 2Q 2009 3Q 2009 4Q 2009	
	River View Sub	00793-1	Forestry to perform on cycle comprehensive circuit Tree Trimming in 2011, evaluating for spot trimming in 2010 Performance was driven by two equipment failures and one animal outage. Comprehensive tree trimming Install fault indicators at two existing switch locations Pole repair/replace Additional fusing Perform circuit three-phase backbone assessment Two new mainline switch installations w/fault indicators	To be completed in 2011 Complete Complete Complete Complete Complete Complete	Jun-09 Jun-09 Dec-09 Dec-09 Mar-10	1Q 2009 2Q 2009 3Q 2009 4Q 2009	
	River View Sub	00793-1	Forestry to perform on cycle comprehensive circuit Tree Trimming in 2011, evaluating for spot trimming in 2010 Performance was driven by two equipment failures and one animal outage. Comprehensive tree trimming Install fault indicators at two existing switch locations Pole repair/replace Additional fusing Perform circuit three-phase backbone assessment	To be completed in 2011 Complete Complete Complete Complete Complete Complete	Jun-09 Jun-09 Dec-09 Dec-09 Mar-10	1Q 2009 2Q 2009 3Q 2009 4Q 2009 1Q 2009 1Q 2010	
			Forestry to perform on cycle comprehensive circuit Tree Trimming in 2011, evaluating for spot trimming in 2010 Performance was driven by two equipment failures and one animal outage. Comprehensive tree trimming Install fault indicators at two existing switch locations Pole repair/replace Additional fusing Perform circuit three-phase backbone assessment Two new mainline switch installations w/fault indicators Performance was driven by non-preventable trees, line failure and equipment failure	To be completed in 2011 Complete Complete Complete Complete Complete e.	Jun-09 Jun-09 Dec-09 Dec-09 Mar-10 Feb-10	1Q 2009 2Q 2009 3Q 2009 4Q 2009 1Q 2010 1Q 2010 1Q 2009 2Q 2009	
	River View Sub	00793-1	Forestry to perform on cycle comprehensive circuit Tree Trimming in 2011, evaluating for spot trimming in 2010 Performance was driven by two equipment failures and one animal outage. Comprehensive tree trimming Install fault indicators at two existing switch locations Pole repair/replace Additional fusing Perform circuit three-phase backbone assessment Two new mainline switch installations w/fault indicators Performance was driven by non-preventable trees, tine failure and equipment failure Main Line Enhanced Tree Clearing	To be completed in 2011 Complete Complete Complete Complete Complete e. Complete	Jun-09 Jun-09 Dec-09 Dec-09 Mar-10 Feb-10 Feb-09	1Q 2009 2Q 2009 3Q 2009 4Q 2009 1Q 2010 1Q 2010 1Q 2009 2Q 2009 3Q 2009	
			Forestry to perform on cycle comprehensive circuit Tree Trimming in 2011, evaluating for spot trimming in 2010 Performance was driven by two equipment failures and one animal outage. Comprehensive tree trimming Install fault indicators at two existing switch locations Pole repair/replace Additional fusing Perform circuit three-phase backbone assessment Two new mainline switch installations w/fault indicators Performance was driven by non-preventable trees, line failure and equipment failure Main Line Enhanced Tree Clearing Install Fault Indicators	To be completed in 2011 Complete	Jun-09 Jun-09 Dec-09 Dec-09 Mar-10 Feb-10 Feb-09 Jun-09	1Q 2009 2Q 2009 3Q 2009 4Q 2009 1Q 2010 1Q 2010 1Q 2009 2Q 2009	

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters
		Performance was driven by vehicle accidents, non-preventable trees and equipment failure.				
			Study Downtown Bath Sectionalization	Complete	Jul-09	1Q 2009
	Bath	00873-3	Study Bath Substation Automation	Complete	Ju⊢09	2Q 2009
	Qalli	00010-0	Perform accelerated three phase assessment	Complete	Jan-10	3Q 2009
			Forestry to perform on cycle comprehensive circuit Tree Trimming	Complete	Mar-10	40 2009
			Perform accelerated backbone assessment	Complete	Jul-10	
			Performance was driven by lightning, car pole accidents and non-preventable tree-r	elated outages		
			Repair critical items identified from backbone assessment & circuit patrol	Complete	Mar-09	10 2009
	Shawnee	00895-3	Install radio control communication equipment on existing automation	Complete	Aug-09	2Q 2009 3Q 2009
	Shawnee	00033-3	Main Line Back Bone protection (lateral fusing)	Complete	Nov-09	40 2009
			Perform accelerated three phase and backbone assessment	Complete	Jan-10	10 2010
			Install Fault Indicators	Complete	Apr-10	
			Performance was driven by non-preventable trees, equipment and line failure relate	ed outages.		10 2009
			Routine Tree Maintenance	Complete	Mar-09	20 2009
	Shawnee	00899-3	Study Additional Backbone Protection	Complete	Nov-09	30 2009
			PM/CM items repair	Complete	Dec-09	40 2009
I			Perform accelerated three phase and backbone assessment	Complete	Jan-10	10 2010

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Joint 2010 Quarterly Reliability Report for period-ending June 30, 2010

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