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610-929-3601

April 29, 2011

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APR 29 2011

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

PA PUBLIC UTILITY COMMISSION SECHETARY'S BUREAU

Re: Joint 1st Quarter 2011 Reliability Report – Pennsylvania Power Company, Pennsylvania Electric Company and Metropolitan Edison Company - Pursuant to 52 Pa. Code § 57.195(d)and(e)

Dear Secretary Chiavetta,

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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 1st Quarter 2011 Reliability Report – Public Version, pursuant to 52 Pa. Code § 57.195(d) and (e).

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

Sincerely,

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

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

PUBLIC VERSION





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Joint 1st Quarter 2011 Reliability Report – Pennsylvania Power Company, Pennsylvania Electric Company and Metropolitan Edison Company

The following Joint 1st Quarter 2011 Reliability Report is filed on behalf of Pennsylvania Power Company ("Penn Power"), Pennsylvania Electric Company ("Penelec"), and Metropolitan Edison Company ("Met-Ed"), collectively referred to as the "Companies" for the period-ending March 31, 2011.

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

Major Events

8	+				•		
FirstEnergy Company	Customers Affected	Time and Duration of the Event		Customers Time and Duration of the Cause of the Affected Event Event		Cause of the Event	Commission Approval Status [,]
					t		
		Duration	2 days 12 hours 55 minutes				
Met-Ed	56,679	Start Date/Time	February 2, 2011 at 1:05am	Winter storm with freezing rain and high winds	Approved April 26, 2011		
		End Date/Time	February 4, 2011 at 2:00pm				

^a 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 (SAIF1, CAIDI, SAIDI, and if available MAIF1) 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.

10 2011	F F	Penn Powe	r		Penelec		•1	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	0.90	1.26	1.52	1.39	1.15	1.38	1.46 ^b
CAIDI	101	121	105	117	141	123	117	140	111
SAIDI	113	162	94	148	213	172	135	194	161
Customers Served ^(a)		158,282			584,705			547,772	
Number of Sustained Interruptions		3,097			11,882			9,951	
Customers Affected		141,695			814,800			797,562	
Customer Minutes		14,847,253		1	100,346,666	5		88,359,821	

Reliability Index Values

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

Penn Power, Penelec, and Met-Ed results for 1st Quarter 2011 are:

	Penn Power						
SAIFI	33% better than Commission's 12-Month Standard 20% better than Commission's Benchmark 11% improvement over 12-Month Rolling Actual for 4Q2010						
CAIDI	13% better than Commission's 12-Month Standard						
SAIDI	42% better than Commission's 12-Month Standard 17% better than Commission's Benchmark 1% improvement over 12-Month Rolling Actual for 4Q2010)					
	Penelec	بر <u>گر</u> اید .					
SAIFI	9% better than Commission's 12-Month Standard						
CAIDI	13% better than Commission's 12-Month Standard 1% improvement over 12-Month Rolling Actual for 4Q 201	0					
SAIDI	19% better than Commission's 12-Month Standard						
· _ · ·	Met-Ed						
SAIFI	3% improvement over 12-Month Rolling Actual for 4Q2010)					
CAIDI	21% better than Commission's 12-Month Standard 7% improvement over 12-Month Rolling Actual for 4Q2010						
SAID	17% better than Commission's 12-Month Standard 11% improvement over 12-Month Rolling Actual for 4Q20	10					

^b Met-Ed's SAIFI has shown at 3% improvement over 4Q2010, however the higher-than-normal SAIFI is directly attributed to several non-excludable storm events. In 2011, Met-Ed will continue a series of reliability improvement initiatives to "harden" the three-phase distribution backbone. Examples of these SAIFI initiatives include SAIFI engineering analysis on the high SAIFI circuits and installing additional fuses and reclosers as well as continued emphasis on improved handling of Forestry Management to target overhang and off-corridor danger trees.

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

Worst Performing Circuits - Reliability Indices

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

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

Worst Performing Circuits - Remedial Action

Penn Power, Penelec, and Met-Ed's Remedial Actions 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	-			
1st Quarter 2011 12-Month Rolling	Penn Power					
Cau se	Customer Minutes	Number of Sustained Interruptions	Customers Affected	% Based on Number of Outages		
TREES/NOT PREVENTABLE	6,111,889	65 9	10,399	21.28%		
LIGHTNING	1,628,862	492	4,970	15.89%		
EQUIPMENT FAILURE	1,766,431	413	531	13.34%		
ANIMAL	705,170	393	36,722	12.69%		
BIRD	353,191	310	2	10.01%		
	1,809,967	260	7,673	8.40%		
	495,012	162	198	5.23%		
VEHICLE	1,244,154	92	1,254	<u> </u>		
OVERLOAD	129,403	78	4	2.52%		
FORCED OUTAGE	227,128	63	14,002	2.03%		
PREVIOUS LIGHTNING	45,159	51	11,005	1.65%		
TREES/PREVENTABLE	85,166	39	248	1.26%		
HUMAN ERROR -NON-COMPANY	180,601	38	4	1.23%		
CUSTOMER EQUIPMENT	18,891	14	1,984	0.45%		
UG DIG-UP	5,020	12	798	0.39%		
OBJECT CONTACT WITH LINE	15,690	8	35,982	0.26%		
HUMAN ERROR - COMPANY	10,845	6	665	0.19%		
VANDALISM	12,210	3		0.10%		
	1,510	2	6,628	0.06%		
FIRE	102	1	137	0.03%		
OTHER ELECTRIC UTILITY	852	1	8,459	0.03%		
TIOTAL	14,847,253	3,097	141,695	100!00%		

Proposed Solutions - Penn Power

Trees Non-Preventable

Forestry Services reviews the "Trees Non-Preventable" outages to see if there has been a high frequency of occurrences on the circuit. A patrol of the circuit is conducted to identify trees that need to be trimmed or removed to avoid future outages. In addition, line and forestry personnel patrol for Danger / Priority trees as part of their daily work routine. The Danger / Priority Tree program identifies off right-of-way trees that present a hazard to power lines. Under this program all circuits that have had "Trees Non-Preventable" caused outages are prioritized based on customer outage minutes. A patrol of the three-phase backbone of each circuit is performed and foresters work with private property owners to remove any potentially dangerous tree conditions.

Lightning

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

Equipment Failure

The number of equipment failures are mitigated by way of inspection and maintenance practices, such as circuit inspections and others. Further, distribution circuit protection coordination reviews and the enhanced circuit protection schemes that result will provide isolation of equipment failures and lessen the impact of outages to a smaller number of customers.

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

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

Outages by Cause - Penelec

	Outages by	/ Cause					
1st Quarter 2011 12-Month Rolling	Penelec						
Cause	Customer Minutes	Number of Sustained Interruptions	Customers Affected	% Based on Number of Outages			
EQUIPMENT FAILURE	25,636,994	3,515	243,333	29.58%			
	6,408,226	1,756	87,269	14.78%			
TREES/NOT PREVENTABLE	30,163,285	1,710	158,405	14.39%			
ANIMAL	2,342,559	1,159	25,341	9.75%			
	13,359,623	1,002	123,946	8.43%			
FORCED OUTAGE	3,057,433	682	41,582	5.74%			
	4,352,916	528	34,039	4.44%			
BIRD	392,334	354	5,249	2.98%			
VEHICLE	3,558,701	326	27,156	2.74%			
OVERLOAD	926,930	163	12768	1.37%			
HUMAN ERROR -NON-COMPANY	1,049,857	105	8,386	0.88%			
HUMAN ERROR - COMPANY	147,158	99	7,625	0.83%			
OTHER ELECTRIC UTILITY	284,892	87	1,593	0.73%			
PREVIOUS LIGHTNING	141,632	82	3,304	0.69%			
UG DIG-UP	405,601	74	1,985	0.62%			
WIND	6,872,079	61	21,208	0.51%			
TREES/PREVENTABLE	29,378	38	354	0.32%			
	19,514	37	141	0.31%			
OBJECT CONTACT WITH LINE	427,667	27	1,811	0.23%			
VANDALISM	413,134	22	1,992	0.19%			
	62,403	17	492	0.14%			
CUSTOMER EQUIPMENT	28,843	16	208	0.13%			
OTHER UTILITY-NON ELEC	35,388	8	351	0.07%			
SWITCHING ERROR	208,138	8	5,981	0.07%			
CONTAMINATION	21,981	6	281	0.05%			
TOTAL	100,346,666	11,882	814,800	100100%			

Proposed Solutions - Penelec

Equipment Failure

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

In addition, inspection and maintenance practices, such as overhead circuit inspections, identify and correct potential equipment-related problems before they cause an outage. Penelec's entire main feed three-phase backbone system has been inspected at least once since 2008 and is currently on a 5 year cycle of inspections. Off-cycle inspections are performed based on circuit performance and may include infrared scanning to assist in identification of potential equipment problems.

To reduce the impact of outages, distribution circuit protection coordination reviews and the enhanced circuit protection schemes that result provide isolation of equipment failures.

To limit the number of multiple outages at the same location, Engineering Services continually monitors and investigates devices experiencing three or more outages in sixty days to identify causes and trends of equipment failures and other outages.

Unknown Outages

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

Trees Non-Preventable

Forestry Services reviews the "Trees Non-Preventable" outages to see if there has been a high frequency of occurrences on the circuit. A patrol of the circuit is conducted to identify dead or diseased trees that need to be trimmed or removed to avoid future outages. In addition, line and forestry personnel patrol for Danger / Priority trees as part of their daily work routine. The Danger / Priority Tree inspections identify off right-of-way trees that present a hazard to power lines. Circuits are then prioritized by customer minutes due to "Trees Non-Preventable" outages. A patrol of the entire circuit is performed and Forestry Services works with private property owners to remove any potentially dangerous tree conditions. This practice has been adopted as part of our normal tree trimming maintenance program.

Outages by Cause - Met-Ed

27	Outages by C	ause		
1st Quarter 2011 12-Month Rolling		Met-E	d	
Cause	Customer Minutes	Number of Sustained Interruptions		% Based on Number of Outages
EQUIPMENT FAILURE	17,937,065	2,479	238,887	24.91%
TREES/NOT PREVENTABLE	34,706,682	2,033	193,590	20.43%
ANIMAL	2,691,481	1,558	29,606	15.66%
UNKNOWN	3,481,053	1,181	38,267	11.87%
	11,299,515	924	88,380	9.29%
LIGHTNING	2,570,924	376	16,296	3.78%
FORCED OUTAGE	3,074,544	344	53,621	3.46%
VEHICLE	5,530,727	268	50,378	2.69%
BIRD	112,347	194	1,817	1.95%
TREES/PREVENTABLE	658,863	152	6,433	1.53%
OVERLOAD	1,836,140	101	12,124	1.01%
HUMAN ERROR - COMPANY	924,557	71	40,980	0.71%
HUMAN ERROR - NON-COMPANY	605,361	69	9,680	0.69%
PREVIOUS LIGHTNING	131,057	65	1,203	0.65%
	129,363	35	609	0.35%
OBJECT CONTACT WITH LINE	263,777	21	3,367	0.21%
WIND	1,546,748	21	4,658	0.21%
CUSTOMER EQUIPMENT	8,990	18	102	0.18%
OTHER ELECTRIC UTILITY	411,694	16	4,211	0.16%
VANDALISM	363,914	16	3,065	0.16%
FIRE	57,847	4	196	0.04%
ICE	1,123	3	13	0.03%
OTHER UTILITY-NON ELEC	16,049	2	79	0.02%
TOTAL	88,359,821	9,951	7,97,562	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 provide isolation of equipment failures and lessen the impact of outages to a smaller number of customers. In addition, the Engineering Department periodically conducts a multi-operation device review to identify causes and trends of equipment failures and other outage causes. Engineering then plans accordingly to repair or replace facilities.

Trees Non-Preventable

Forestry Services reviews areas where "Trees Non-Preventable" outages occur to see if there has been a high frequency of occurrence. A patrol of the circuit is conducted to identify trees that need to be trimmed or removed to avoid future outages. In addition, line and forestry personnel patrol for Danger / Priority trees as part of their daily work routine. The Danger / Priority Tree program identifies off right-of-way trees that present a hazard to power lines.

Under the Danger / Priority Tree program, circuits identified by the Engineering Department that have had "Trees Non-Preventable" caused outages are prioritized based on customer outage minutes. A patrol of the three-phase backbone of each circuit is performed and foresters identify any potentially dangerous tree conditions. If the tree cannot be removed, overhang at the location is removed.

<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 and Maintenance		Penn Power		Penelec			Met-Ed			
inspection a	2011		Com	pleted	Planned	Ĉóm	pleted	Planned	Com	pleted
	<u></u>	Annual	10	YTD	Annual	10	YTD	Annual	1Q	YTD
Forestry	Transmission (Miles)	30.39	21.00	21.00	185.35	0.00	0.00	78.58	0.00	0.00
Forestry	Distribution (Miles)	1,136	319	319	3,729	771	771	2,874	594	594
Transmission	Aerial Patrols	2	0	0	2	0	0	2	0	0
	Groundline ^c	0	0	0	1,301	0	0	0	0	0
	General Inspections	960	240	240	4,956	1,239	1,239	2,616	654	654
Substation	Transformers	125	55	55	761	562	562	337	124	124
	Breakers	36	3	3	439	244	244	241	62	62
	Relay Schemes	Maintenance Penn Power Penelec Planned Completed Planned Completed Annual 1Q YTD Annual 1Q ansmission (Miles) 30.39 21.00 21.00 185.35 0.00 Distribution (Miles) 1,136 319 319 3,729 771 Aerial Patrols 2 0 0 2 0 Groundline ^c 0 0 1,301 0 eneral Inspections 960 240 240 4,956 1,239 Transformers 125 55 55 761 562 Breakers 36 3 3 439 244 Relay Schemes 87 24 24 736 283 Capacitors 995 995 995 8,654 8,496 Poles 10,600 1,874 1,874 41,111 0 Reclosers 748 0 0 2,164 212 <td>283</td> <td>315</td> <td>127</td> <td>127</td>	283	315	127	127				
	Capacitors	995	995	995	8,654	8,496	8,496	4,621	4,621	4,621
Distribution	Poles	10,600	1,874	1,874	41,111	0	0	28,433	31,428	31,428
Biscibuloti	Reclosers	748	0	0	2,478	0	0	901	901	901
_	Radio-Controlled Switches	Penn Por contro	wer has no olled switch	radio- nes	2,164	212	212	92	0	0

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.

^c Transmission groundline inspections:

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

<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).

•	T&D O&N	и - 1Q / Y	TD Marc	h 2011 (\$	5)	
Company	PUC Category	1Q Actuals	1Q Budget	YTD Actual	YTD Budget	Annual Budget
	Corrective Maintenance	204,177	72,166	204,177	72,166	368,409
	Preventive Maintenance	99,784	0	99,784	0	0
Popp Bower	Storms	150,259	291,494	150,259	291,494	1,195,123
reint rower	Vegetation Management	127,270	266,841	127,270	266,841	884,234
	Misc	755,579	1,374,191	755,579	1,374,191	5,186,713
	Operations	636,351	534,374	636,351	534,374	1,402,946
	Penn Power Total	1,973,420	2,539,066	1,973,420	2,539,066	9,037,425
	Corrective Maintenance	803,809	804,834	803,809	804,834	3,695,388
	Preventive Maintenance	1,407,708	1,113,256	1,407,708	1,113,256	5,032,902
Panalac	Storms	510,435	892,164	510,435	892,164	3,866,263
Penelec	Vegetation Management	755,906	708,376	755,906	708,376	4,986,170
	Misc	2,233,702	3,138,226	2,233,702	3,138,226	13,844,151
	Operations	3,755,930	4,747,247	3,755,930	4,747,247	16,212,823
1	Penelec Total	9,467,490	11,404,103	9,467,490	11,404,103	47,637,697
	Corrective Maintenance	661,122	654,574	661,122	654,574	2,656,243
	Preventive Maintenance	681,376	904,797	681,376	904,797	3,733,258
Mot Ed	Storms	4,884,308	2,091,035	4,884,308	2,091,035	8,796,475
MGC-LU	Vegetation Management	598,901	845,523	598,901	845,523	4,784,291
	Misc	2,161,869	2,227,718	2,161,869	2,227,718	9,672,868
	Operations	3,510,449	3,281,667	3,510,449	3,281,667	11,637,799
l	Met-Ed Total	12,498,025	10,005,314	12,498,025	10,005,314	41,280,934
Grand Total		23,938,935	23,948,483	23,938,935	23,948,483	97,956,056

Budgeted vs. Actual T&D Operation & Maintenance Expenditures

<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).

T&D Capital Only Includes CIAC (net) - 1Q / YTD March 2011 (\$)						
Company	PUC Category	1Q Actual	1Q Budget	YTD Actual	YTD Budget	Annual Budget
<u> </u>	New Business	1,231,179	427,403	1,231,179	427 403	2,860,500
	Reliability	719,995	2,159,584	719,995	2,159,584	8,884,642
Bonn Bower	Capacity	196,458	223,436	196,458	223,436	516,665
Feilii Fuwei	Misc	506,196	520,726	506,196	520,726	1,302,047
	Forced	1,597,221	1,230,690	1,597,221	1,230,690	4,805,563
	Vegetation Management	1,363,233	1,460,394	1,363,233	1,460,394	4,867,980
	PennPower Total	5,614,282	6,022,233	5,614,282	6,022,233	23,237,398
	New Business	3,602,876	4,130,606	3,602,876	4,130,606	19,321,082
Penelec	Reliability	10,626,441	13,230,787	10,626,441	13,230,787	39,198,455
	Capacity	5,194,947	7,173,362	5,194,947	7,173,362	18,435,969
	Misc	688,786	4,812,970	688,786	4,812,970	17,564,055
	Forced	7,095,898	5,288,563	7,095,898	5,288,563	28,527,644
	Vegetation Management	3,918,842	3,341,435	3,918,842	3,341,435	15,669,629
	Penelec Total	31,127,790	37,977,723	31,127,790	37,977,723	138,716,834
	New Business	3,456,471	5,020,136	3,456,471	5,020,136	21,454,639
New Business Reliability	4,842,667	6,222,501	4,842,667	6,222,501	25,848,587	
Mot Ed	Capacity	1,851,898	2,382,800	1,851,898	2,382,800	7,944,344
Met-Ed	Misc	1,670,292	2,649,171	1,670,292	2,649,171	9,552,347
	Forced	5,608,219	5,772,090	5,608,219	5,772,090	21,518,803
	Vegetation Management	3,674,560	3,681,044	3,674,560	3,681,044	15,756,410
	Met-Ed Total	21,104,107	25,727,742	21,104,107	25,727,742	102,075,130
Grand Total	÷	57,846,179	69,727,698	57,846,179	69,727,698	264,029,362

Budgeted vs. Actual T&D Capital Expenditures

<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 Le	vels
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	Penn Power 2011				
Department	Ŝtaff	1Q	2Q	3Q	4Q
Line	Leader / Chief	27	-		
Line	Lineman	54			
Substation	Technician	6			
Substation	Construction & Maintenance (C&M)	14			
	Total	101			

	Penelec 2011				
Department	Staff	1Q	2Q	3Q	4Q
Line	Leader / Chief	140			
Line_	Lineman	189			
Substation	Technician	8			
Substation	Construction & Maintenance (C&M)	69			
	াৰ্চচন্দ	403			

	Met-Ed 2011				
Department	Staff	1Q	2Q	3Q	4Q
Line	Leader / Chief	53			
En lê	Lineman	159			
Substation	Technician	12		I	
Substation	Construction & Maintenance (C&M)	57			
	latoT	281			

<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

Contractor expenses are billed on a lump sum basis and as such, hourly information is not available.

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

Call-out percentage is defined as the number of positive responses to total calls.

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.

ATTACHMENT A

Worst Performing Circuits - Reliability Indices

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

Penn Pow	ver			1999 - 1997 - 19	· · · · ·					· · · · · ·			
Circuit Rank	Substation	Circuit Desc	District	Average Customers (1)	Outages (2)	Lockouts (3)	Customer Minutes (4)	Customers Affected (5)	SAID) Impact (6)	Saidi (7)	SAIFI (7)	CAIDI (7)	MAIFI (7)
1	CANAL	W-101	CLARK	1,502	8	1	268,644	1,547	1.70	179	1.03	173.7	5.00
2	HARTSTOWN	W-126	CLARK	2,166	11	0	171,451	1,783	1.08	79	0.82	96.2	0.00
3	HADLEY	W-195	CLARK	961	9	0	155,415	594	0.98	162	0.62	261.6	0.00
4	INGOMAR	D620	ZELIENOPLE	1,244	3	0	136,113	262	0.86	109	0.21	519.5	0.00
5	MERCER	W-168	CLARK	838	7	0	126,095	456	0.80	150	0.54	276.5	0.00
6	RICHARD	W742	ZELENOPLE	1,498	3	1	125, 9 21	1,522	0.79	84	1.02	82.7	0.00
7	HEMPFIELD	W-147	CLARK	460	2	0	103,057	434	0.65	224	0.94	237.5	0.00
8	EVANS CITY	D610	ZELIENOPLE	1,316	5	0	85,237	290	0.54	65	0.22	293.9	0.00
9	CHIPPEWA	D-557	ZELIENOPLE	1,207	9	0	81,266	338	0.51	67	0.28	240.4	0.00

- (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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Circuit Rank	Substation	Circuit Desc	District	Average Customers {1}	Outages (2)	Lockouts (3)	Customer Minutes (4)	Curstomers Affected (5)	SAIDI Impact (6)	Saidi (7)	Saifi (7)	CAIDI (7)	MAIFI (7)
<u> 1</u>	Belmont	00902-11	Johnstown	1,489	8	1	3,157,084	3,214	5.40	2,120	2.16	982	1.00
2	Springboro	00237-52	Meadville	2,854	87	0	1,778,467	8,469	3.04	623	2.97	210	15.74
3	Millcreek	00055-11	Johnstown	2,033	23	1	1,617,524	4,423	2.77	796	2.18	366	0.00
4	Salix	00070-11	Johnstown	2,192	42	2	1,489,276	9,894	2.55	679	4,51	151	4.20
5	Hilltop	00048-11	Johnstown	2,550	21	1	1,331,832	3,077	2.28	522	1.21	433	4.40
6	Blairsville East	00082-13	Indiana	1,593	43	4	1,187,255	8,112	2.03	745	5.09	146	18.64
7	Warren South	00220-41	Warren	2,971	78	0	1,046,479	6,567	1.79	352	2.21	159	6.60
8	Rolling Meadows	00310-31	Erie	3,027	30	1	979,949	7,305	1.68	324	2.41	134	12.61
9	Hiltop	00040-11	Johnstown	1,422	35	1	905,867	2,866	1.55	637	2.02	316	13.38
10	Tower 51	00051-11	Johnstown	552	18	0	905,196	1,315	1.55	1,640	2.38	688	12.89
11	Grover	00527-63	Mansfield	1,105	67	0	894,310	3,169	1.53	809	2.87	282	5.25
12	Marienville	00328-51	Oil City	1,201	38	0	806,986	3,718	1.38	672	3.10	217	12.35
13	Union City	00206-43	Согту	3,766	102	0	780,269	4,232	1.33	207	1.12	184	9.83
14	Buffalo Road	00580-31	Erie	1,254	. 17	2	703,162	2,800	1.20	561	2.23	251	1.68
15	Birmingham	00168-22	Philipsburg	1,051	43	1	638,222	3,591	1.09	607	3.42	178	5.14
16	Cooper	00069-11	Johnstown	677	21	1	613,699	2,795	1.05	906	4.13	220	22.44
17	Madera	00166-22	Philipsburg	2,236	69	0	607,102	5,671	1.04	272	2.54	107	7.67
18	Erie South	00259-31	Erie	2,445	61	0	592,314	5,704	1.01	242	2.33	104	1.01
19	Ralphton	00014-12	Somerset	1,642	. 48	0	582,450	3,080	1.00	355	1.88	189	12.31
20	Scalp Level	00031-11	Johnstown	1,199	18	0	553,714	2,207	0.95	462	1.84	251	3.35
21	Hammett	00504-31	Erie	1,390	26	1	543,304	6,045	0.93	391	4.35	90	10.03
22	Starrucca	00744-65	Montrose	871	24	0	511,056	1,835	0.87	587	2.11	279	8.74
23	Meyersdale North	00022-12	Somerset	1,583	28	0	509,856	4,633	0.87	322	2.93	110	6.51
24	Maitland	00149-81	Lewistown	1,314	47	1	505,455	3,215	0.86	385	2.45	157	7.87
25	Bay	00911-11	Johnstown	604	5	1	492,563	660	0.84	816	1.09	746	5.00
26	Edgewood	00097-13	Indiana	1,351	11	0	490,707	2,638	0.84	363	1.95	186	12.30
27	Curryville	00610-71	Altoona	476	20	1	488,992	700	0.84	1,027	1.47	699	6.00
28	Fairview East	00218-34	Erie	1,011	22	0	475,577	2,733	0.81	470	2.70	174	13.12

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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	Millcreek	00052-11	Johnstown	1,088	18	0	446,072	1,324	0.76	410	1.22	337	6.93
	Eldred	00119-42	Bradford	858	17	2	438,384	2,321	0.75	511	2.71	189	4.64
31	South Fork	00229-11	Johnstown	616	- 5	0	437,194	654	0.75	710	1.06	668	1.00
32	Tionesta Junction S	00498-51	Oil City	1,123	30	0	432,695	1,765	0.74	385	1.57	245	7.35
33	Pennmar	00001-12	Somerset	384	16	2	429,313	1,891	0.73	1,118	4.92	227	7.20
34	Green Garden	00224-31	Erie	2,221	23	1	414,994	3,969	0.71	187	1.79	105	5.03
35	St. Benedict	00057-72	Ebensburg	919	11	2	409,826	2,635	0.70	446	2.87	156	2.04
36	Carlisle Pike	00643-83	Shippensburg	3,060	28	1	408,091	4,559	0.70	133	1.49	90	5.55
37	Athens	00514-61	Sayre	777	27	0	387,490	2,441	0.66	499	3.14	159	13.30
38	Two Mile	00127-42	Bradford	1,308	31	1	374,596	3,034	0,64	286	2.32	123	12.23
39	Logan	00700-81	Lewistown	1,037	37	0	368,376	1,888	0.63	355	1.82	195	15.06
40	Lowell Avenue	00518-31	Erie	. 961	32	3	364,421	3,923	0.62	379	4.08	93	5.02
41	Shawville	00151-21	Clearfield	2,341	60	3	356,995	4,566	0.61	152	1.95	78	5.06
42	Millcreek	00219-11	Johnstown	797	8	0	347,506	323	0.59	436	0.41	1,076	2.00
43	Edinboro	00421-34	Erie	599	11	1	338,346	631	0.58	565	1.05	536	3.29
44	Madera	00147-22	Philipsburg	1,074	48	1	336,522_	2,594	0.58	313	2.42	130	10.74
45	Saxton	00624-73	Bedford	627	11	0	335,192	446	0.57	535	0.71	752	2.62
46	Beechwood	00201-11	Johnstown	399	7	1	334,900	823	0.57	839	2.06	407	4.13
47	Greenwood	00002-71	Attoona	940	6	0	332,325	1,215	0.57	354	1.29	274	5.54
48	Mansfield	00558-63	Mansfield	738	29	1	330,069	1,491	0.56	447	2.02	221	3.36
49	Hooversville	00019-12	Somerset	1,623	61	0	329,827	1,969	0.56	203	1.21	168	8.31
50	North Warren	00596-41	Warren	1,114	36	0	310,893	2,185	0.53	279	1.96	142	3.23
51	Seward	00075-11	Johnstown	1,019		0	310,853	3,183	0.53	305	3.12	98	8.96
52	Somerset	00030-12	Somerset	2,435	29	0	310,648	3,258	0.53	128	1.34	95	8.67
53	Lake Como	00787-65	Montrose	855	26	0	308,715	1,785	0.53	361	2.09	173	43.35
54	DuBois	00137-23	DuBois	2,882	64	0	308,089	2,213	0.53	107	0.77	139	3.13
55	Shelocta	00102-13	Indiana	1,186	18	0	307,223	3,427	0.53	259	2.89	90	12.66

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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)
56	Somerset	00016-12	Somerset	1,202	29	1	306,586	1,959	0.52	255	1.63	157	19.13
57	Rockton Mountain	00138-21	Clearfield	486	27	1	304,963	2,536	0.52	627	5.22	120	9.82
58	Covington	00729-63	Mansfield	747	30	0	303,040	1,174	0.52	406	1.57	258	0.29
59	Ralphton	00015-12	Somerset	1,154	36	3	302,466	3,136	0.52	262	2.72	96	16.36

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

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

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

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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)	SAÐI (7)	SAIFI (7)	CAIDI (7)	MAIFI (7)
1	ALLEN	00503-4	Kanover	2,085	78	4	2,078,386	12,171	3.80	997	5.84	171	17.66
2	SHAWNEE	00822-3	Stroudsburg	3,702	74	1	1,499,631	11,748	2.74	405	3.17	128	5.00
3	BIRDSBORO	00757-1	Reading	1,921	49	3	1,411,464	7,617	2.58	735	3.97	185	5.98
4	ALLEN	00502-4	Hanover	1,029	42	3	1,275,571	2,971	2.33	1,240	2.89	429	10.01
5	MYERSTOWN	00750-2	Lebanon	1,446	26	1	1,262,726	3,222	2.31	873	2.23	392	0.00
6	CROSSROADS	00728-4	York	1,103	62	0	1,128,837	3,723	2.06	1,023	3.38	303	0.00
7	DILLSBURG	00746-4	Hanover	2,325	42	0	1,111,605	3,735	2.03	478	1.61	298	1.00
8	SWATARA HILL	00763-2	Lebanon	1,449	38	2	1,063,050	6,082	1.94	734	4.20	175	1.00
9	BIRDSBORO	00756-1	Reading	1,534	64	1	1,012,795	4,823	1.85	660	3.14	210	13.96
10	FOX HILL	00816-3	Stroudsburg	3,742	65	1	1,005,375	7,754	1.84	269	2.07	130	7.22
11	SHAWNEE	00895-3	Stroudsburg	3,864	93	1	956,580	7,216	1.75	248	1.87	133	10.69
12	NO BANGOR	00826-3	Easton	3,200	100	1	939,107	9,864	1.71	293	3.08	95	1.84
13	BATH	00873-3	Easton	2,140	38	2	825,428	5,213	1.51	386	2.44	158	17.47
14	NO BANGOR	00813-3	Easton	1,321	40	0	819,611	4,217	1.50	620	3.19	194	1.00
15	ORRTANNA	00764-4	Hanover	1,671	_43	2	765,800	5,241	1.40	458	3.14	146	2.00
16	ANNVILLE	00742-2	Lebanon	1,153	20	3	763,333	5,515	1.39	662	4.78	138	0.00
17	GRANTVILLE	00721-2	Lebanon	1,081	36	2	754,581	2,732	1.38	698	2.53	276	8.14
18	NORTH CORNWALL	00610-2	Lebanon	1,606	34	1	728,519	2,937	1.33	454	1.83	248	0.00
19	HILL	00737-4	York	2,158	48	1	718,774	7,037	1.31	333	3.26	102	5.03
20	YORKANA	00708-4	York	2,405	57	2	710,672	8,343	1.30	296	3.47	85	2.58
21	SHAWNEE	00860-3	Stroudsburg	3,208	62	1	682,392	6,138	1.25	213	1.91	111	8.06
22	FLYING HILLS	00777-1	Reading	1,755	43	0	678,523	1,979	1.24	387	1.13	343	12.75
23	TOLNA	00793-4	York	1,495	43	1	660,598	4,297	1.21	442	2.87	154	1.27
24	BARTO	00705-1	Boyertown	2,082	122	2	658,252	6,524	1.20	316	3,13	101	26.09
25	CAMPBELLTOWN	00731-2	Lebanon	2,260	56	0	658,042	2,356	1.20	291	1.04	279	1.02
26	NORTH HANOVER	00514-4	Hanover	1,338	35	0	623,663	3,938	1.14	466	2.94	158	14.13
27	RINGING ROCKS	00708-1	Boyertown	2,197	44	1	596,788	6,253	1.09	272	2.85	95	9.15

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Circuit Rank	Substation	Circuit Desc	District	Average Customers (1)	Outages (2)	Lockouts (3)	Customer Minutes (4)	Customers Affected (5)	ŠAIDI Impaci (6)	Saidi (7)	SAIFI (7)	ĊAIDI (7)	MAIFI (7)
28	BIRCHWOOD	00624-3	Stroudsburg	1,859	31	2	585,723	5,069	1.07	315	2.73	116	12.49
29	NEWBERRY	00576-4	York	1,796	74	1	562,717	4,497	1.03	313	2.50	125	33.71
30	BERNVILLE	00786-1	Reading	1,831	54	2	532,593	5,513	0.97	291	3.01	97	2.56
31	BERN CHURCH	00789-1	Reading	1,428	45	0	529,722	3,392	0.97	371	2.38	156	10.41
32	STRABAN	00676-4	Hanover	1,081	51	1	526,655	3,007	0.96	487	2.78	175	3.00
33	KILL	00735-4	York	1,568	62	2	518,851	5,398	0.95	331	3.44	96	4.01
34	YORKANA	00715-4	York	2,388	55	2	518,668	4,304	0.95	217	1.80	121	8.26
35	NO BANGOR	00838-3	Easton	1,643	42	2	509,735	4,122	0.93	310	2.51	124	7.00
36	ROUND TOP	00583-4	Hanover	376	31	2	505,242	1,888	0.92	1,344	5.02	268	10.66
37	CLEARFIELD	00631-3	Easton	1,860	40	1	496,454	4,365	0.91	267	2.35	114	0.00

(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.

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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 one outage caused by a line failure.	•		
1	Canal	W-101	Line sleeve that failed was replaced at time of restoration	Complete	Jan-11	
			Forestry to trim circuit in 2011	To be completed 2011		
			Performance was driven by two outages caused by non-preventable tree	s during weather con	ditions.	
			Problem tree was removed at time of restoration	Complete	Dec-09	
			Problem tree was removed at time of restoration	Complete	Jบก-10	4Q 2009
			Problem tree was removed at time of restoration	Complete	Ju⊢10	1Q 2010
2	Hartstown	W-126	Forestry to trim circuit in 2010	Jun–10	2Q 2010 3Q 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.	Complete	Feb-11	30 2010 40 2010 10 2011
			Problems trees were removed at time of outage	Complete	Mar-11	
	Hedley	W 105	Performance was driven by two outages caused by non-preventable tree	s during weather con	ditions.	
5	nauley	10-135	Problem trees were removed at time of restoration	Complete	Mar-11	
		DC20	Performance was driven by one outage caused by non-preventable trees	during weather cond	litions.	
4	ingoniai	10020	Problem tree was removed at time of restoration	Complete	Mar-11	
5	Hercer	W-168	Performance was driven by one outage caused by a non-preventable tree	during weather cond	litions.	
J	INC: 661	100	Problem tree was removed at time of restoration	Complete	Feb-11	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
1			Performance was driven by one outage caused by a non-preventable tree	· · · · · · · · · · · · · · · · · · ·	-	
6	Richard	W742	Problem tree was removed at time of restoration	Complete	Feb-11	
			Forestry to trim circuit in 2011	To be completed 2011		
7	Hempfield	W-147	Performance was driven by one outage caused by a non-preventable tree	during a minor storr	n,	
	·		Problem tree was removed at time of restoration	Complete	Mar-11	
8	Evans City	D610	Performance was driven by one outage caused by non-preventable tree of	luring weather condition	tions.	
	Lituno ony		Problem tree was removed at time of restoration	Complete	Mar-11	
			Performance was driven by one outage caused by a non-preventable tree	during weather cond	litions.	
9	Chippewa	D-557	Problem tree was removed at time of restoration	Complete	Mar-11	
			Forestry to trim circuit in 2011	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 trees non-preventable during a minor storm.			20 2010
1	Belmont	00902-11	Repaired damage from minor storm	Complete	Apr-10	3Q 2010 4Q 2010
			Add additional protection per circuit coordination	Complete	Feb-11	1Q 2011
			Performance was driven by trees non-preventable during a minor storm, damage during minor storm.	equipment failure an	d lightning	
			Repaired damage from minor storm	Complete	Jun-10	4Q 2009
5	Cariarhara	00007.00	Review circuit for additional fault indicators	Complete	Apr-10	2Q 2010
	Springboro	00237-52	Repaired lightning damage from minor storm	Complete	Jul-10	30 2010
			Repair equipment damage	Complete	Feb-11	4Q 2010 10 2011
			2011 Circuit Inspection	To be completed 2011		14 2011
			Full Cycle Tree Clearing	To be completed 2011		
			Performance was driven by trees non-preventable and wind damage duri	ng a minor storm.		10 2010
3	Millcreek	00055-11	Repaired damage from minor storm	Complete	Apr-10	30 2010 40 2010
			2011 Circuit Inspection	To be completed 2011		10 2011
			Performance was driven by trees non-preventable and wind damage duri failure.	ng a minor storm and	l equipment	2Q 2010
4	Salix	00070-11	Repaired damage from minor storm	Complete	Apr-10	30 2010
			Repair equipment damage	Complete	Feb-11	40 2010 10 2011
			2011 Circuit Inspection	To be completed 2011		
5	Hiltop	00048-11	Performance was driven by wind damage during a minor storm.			2Q 2010 3Q 2010
	····· F		Repaired damage from minor storm	Complete	Apr-10	4Q 2010 1Q 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 non-preventable trees during a minor storm, failure.	unknown outages an	d equipment	
6	Blairsville East	00082-13	Repaired damage from minor storm	Complete	May-10	20 2010 30 2010
			Repair equipment damage	Complete	Feb-11	40 2010
			Full Cycle Tree Clearing	Complete	Feb-11	10 2011
			Performance was driven by non-preventable tree damage during minor s	torm, animal and light	tning damage.	
			Repaired lightning damage - arrester	Complete	Apr-10	40 2009
7	Warron South	00220 41	Repaired equipment due to animal contact	Complete	May-10	20 2010
	warren South	00220-41	Repaired damage from minor storm	Complete	May-10	30 2010
			Repaired damage from minor storm	Complete	Jun-10	40 2010 10 2011
			Full Cycle Tree Clearing	To be completed 2011		
			Performance was driven by line failure and equipment failure during mind	or storm.		4Q 2009 1Q 2010
8	Rolling Meadows	00310-31	Repaired minor storm damage	Complete	May-10	20 2010
]		Reaired equipment failure during minor storm	Complete	Feb-11	30 2010 40 2010
			Full Cycle Tree Clearing	To be completed 2011		10 2011
			Performance was driven by trees non-preventable and equipment failure	during a minor storn		
	447914		Repaired damage from minor storm	Complete	Apr-10	20 2010
9	нштор	00040-11	Repaired damage from minor storm	Complete	Jun-10	4Q 2010
			2011 Circuit Inspection	To be completed 2011		10 2011
			Performance was driven by wind damage during a minor storm.			20 2010
10	Tower 51	00051-11	Repaired damage from minor storm	Complete	Apr-10	3Q 2010 4Q 2010
			2011 Circuit Inspection	To be completed 2011		1Q 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 equipment failure and non-preventable trees	during minor storms		4Q 2009	
			Repair damage from minor storm	Complete	Apr-10	10 2010	
11	Grover	00527-63	Repair equipment damage	Complete	Aug-10	2Q 2010 3Q 2010	
			Repair damage from minor storm	Complete	Mar-11	4Q 2010	
l			Full Cycle Tree Clearing	To be completed 2011		10 2011	
		1	Performance was driven by trees non-preventable, line failure, and equip	ment failure during m	ninor storm.	20 2010	
17	Marianvilla	00328 61	Repair damage from minor storm	Complete	May-10	30 2010	
12	MALIENVILLE	00320-51	Repair damage from minor storm	Complete	Jul-10	40 2010	
			Repair damage from minor storm	Complete	Feb-11		
			Performance was driven by equipment failure, trees non-preventable, un during minor storms.	known, lightning and	damage	40 2009	
			Targeted Mainline Reliability Equipment Replacement	Complete	Nov-09	10 2010	
13	Union City	00206-43	Repaired damage from minor storm	Complete	May-10	20 2010 30 2010	
		Ion City 00206-4.	Repaired damage from minor storm	Complete	Jul-10	40 2010	
			Repaired damage from minor storm	Complète	Feb-11	1Q 2011	
			Reliability Coordinator to inspect circuit based on outage history	Complete	Jan-11		
[I	Performance was driven by trees non-preventable during minor storm.			20 2010	
14	Buffalo Road	00580-31	Repair damage from minor storm	Complete	May-10	30 2010 40 2010	
			Full Cycle Tree Clearing	To be completed 2011		1Q 2011	
			Performance was driven by non-preventable trees, CPA, equipment failur line.	e and customer cutti	ng tree into	40 2009	
			Add additional protection per circuit coordination	Complete	Aug-10	10 2010	
15	Birmingham	00168-22	Repair damage from CPA	Complete	Jul-10	20 2010	
	_	Review circuit for additi	Review circuit for additional fault indicators	Complete	Jul-10	4Q 2010	
		Repair equipment failure		Repair equipment failure	Complete	Feb-11	10 2011
			2011 Circuit Inspection	To be completed 2011			

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters	
	16 Cooper		Performance was driven by CPA, line failure, unknown during minor storr	n and trees non-prev	entable.		
16		00000 11	Repaired line failiure	Complete	Oct-10		
01		00005-11	Repaired damage from CPA	Complete	Mar-11		
			Reliability Coordinator to inspect circuit based on outage history	To be completed 2011	_		
			Performance was driven by trees non-preventable and equipment failure	•			
			Reliability Coordinator to inspect circuit based on outage history	Complete	Feb-10	4Q 2009 1O 2010	
47	lister.	00400 00	Repair Conditions found by previous reliability inspection	Complete	Feb-10	2Q 2010	
17	Madeta	00166-22	Review circuit for additional fault indicators	Complete	May-10	30 2010	
			Add additional protection per circuit coordination	Complete	Aug-10	10 2011	
			Full Cycle Tree Clearing	To be completed 2011			
=			Performance was driven by trees non-preventable during minor storm, equipment failure and unknown.				
			Targeted Mainline Reliability Equipment Replacement	Complete	Sep-09	4Q 2009 1Q 2010 2Q 2010 3Q 2010	
10	Eria South	00259 34	Repair damage from minor storm	Complete	Jun-10		
	Life South	00235-31	Repair Conditions found by previous reliability inspection	Complete	Jun-10		
			Repaired equipment damage	Complete	jan-11	10 2010	
			Reliability Coordinator to inspect circuit based on outage history	Complete	Jan-11		
			Performance was driven by non-preventable trees during a minor storm	and equipment failure	e		
10	Palahtan	00014-12	Repair equipment failure - croassarm	Complete	Apr-10		
13	Raipitton	0001+12	Repair damage from minor storm	Complete	Sep-10		
			Repaired equipment damage	Complete	Mar-11		
		Performance was driven by wind damage during a minor storm and trees non-preventable.		20 2010			
20	Scalp Level	00031-11	Repair minor storm damage	Complete	Apr-10	3Q 2010 4Q 2010	
				2011 Circuit Inspection	To be completed 2011		10 2011

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Rank	Substation	Cīrcuit	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.			
21	Hammett	00504-31	Repaired tree damage	Complete	Oct-10	
			2011 Circuit Inspection	To be completed 2011		
-		Performance was driven by trees non-preventable during minor storms.				
			Repaired damage from minor storm	Complete	Nov-10	
22 SI	Starruca	00744-65	Repaired damage from minor storm	Complete	Feb-11	
			2011 Circuit inspection	To be completed 2011		
		 	Full Cycle Tree Clearing	To be completed 2011		
		00022-12	Performance was driven by trees non-preventable during minor storm, li	ne failure and CPA.		
23			Repaired CPA damage	Complete	Dec-10	
	Meyersdale North		Repaired line failure	Complete	Mar-11	
			Repaired damage from minor storm	Complete	Mar-11	
			Targeted Mainline Reliability Equipment Replacement	To be completed 2011		
24	Mailand	00140 81	Performance was driven by lightning during minor storm and equipment	failure.		
	mailianu	00145-01	Repaired damage from minor storm	Complete	Oct-10	
25	Вау	00911-11	Performance was driven by trees non-preventable and wind damage duri	ng minor storm.		2Q 2010 3Q 2010 4Q 2010
			Repair damage from minor storm	Complete	Apr-10	10 2011
=			Performance was driven by tree non-preventable during minor storm and	equipment failure.		2Q 2010
26	Edgewood	00097-13	Repair damage from minor storm	Complete	May-10	3Q 2010 4Q 2010
			Repair equipment damage - cap station	Complete	Jul-10	1Q 2011
			Performance was driven by wind damage during minor storm.			20 2010
27	Curraville	00040 74	Repair damage from minor storm	Complete	Apr-10	3Q 2010
21	Curryville	00010-71	Review circuit for additional fault indicators	Complete	Apr-11	4Q 2010
			Full Cycle Tree Clearing	To be completed 2011		10 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 line and equipment failure during minor storm.				
28	28 Fairview East	00218-34	Repair damage from minor storm	Complete	Jun-10	3Q 2010	
			Add additional protection per circuit coordination	Complete	Oct-10	4Q 2010 1Q 2011	
1	,	• • • •	Performance was driven by trees non-preventable during minor storm.	·		20 2010	
29	29 Millcreek	00052-11	Repaired damage from minor storm	Complete	Apr-10	3Q 2010	
			Reliability Coordinator to inspect circuit based on outage history	To be completed 2011		10 2011	
		00440 47	Performance was driven by equipment failure.				
20			Repaired failed equipment	Complete	Oct-10		
50	Lidred	00119-42	2011 Circuit Inspection	To be completed 2011			
			Full Cycle Tree Clearing	To be completed 2011			
		00229-11	Performance was driven by line failure and wind damage during minor storm.				
31	South Fork		Repaired damage from minor storm	Complete	Apr-10	40 2010	
			Add additional protection per circuit coordination	Complete	Feb-11	10 2011	
			Performance was driven by lightning damage during minor storm.	Performance was driven by lightning damage during minor storm.			
32	Tionesta	00498-51	Repaired Damage from minor storm	Complete	Jun-10	20 2010	
	Switching Station		Review circuit for additional fault indicators	Complete	Aug-10	3Q 2010 4Q 2010	
			Full Cycle Tree Clearing	To be completed 2011		10 2011	
22	Doppmar	00001 12	Performance was driven by equipment failure, human error and trees not	n-preventable.			
33	Pennmar	00001-12	Repaired damage from customer cutting tree into primary	Complete	Nov-10		
			Performance was driven by equipment failure, trees non-preventable and equipment failure during minor storm.			4Q 2009 1Q 2010	
24	Green Garden	00224-31	Repair damage from minor storm	Complete	May-10	2Q 2010 3Q 2010	
			Add additional protection per circuit coordination	Complete	Oct-10		
			2011 Circuit Inspection	To be completed 2011		10 2010	
			Full Cycle Tree Clearing	To be completed 2011			

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Rémedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters
			erformance was driven by non-preventable trees and line failure during minor storm.			
			Repair damage from minor storm	Complete	May-10	2Q 2010
35	St Benedict	00057-72	Repair damage from minor storm	Complete	Jun-10	30 2010 40 2010
			2011 Circuit Inspection	To be completed 2011		10 2011
			Targeted Mainline Reliability Equipment Replacement	To be completed 2011		
			Performance was driven by trees non-preventable during minor storm ar	id equipment failure.		
			Repair failed equipment	Complete	Ju⊢10	
36	Carlisle Pike	00643-83	Repair damage from minor storm	Complete	Sep-10] /
			2011 Circuit Inspection	To be completed 2011		
			Add additional protection per circuit coordination	To be completed 2011		
Ţ		00514-61	Performance was driven by trees non-preventable and trees non-preventable during minor storm.			4Q 2009
			Repair damage from minor storm	Complete	May-10	10 2010 20 2010 30 2010 40 2010
37	Athens		Repair damage due to trees non-preventable	Complete	Sep-10	
			Repair damage from minor storm	Complete	Nov-10	
			Add additional protection per circuit coordination	Complete	Dec-10	1Q 2011
	T		Performance was driven by lightning damage and equipment failure.			4Q 2009 2Q 2010
38	i wo wiie	00127-42	Engineering review of full circuit coordination	Complete	Sep-09	30 2010 40 2010
			Repaired equipment damage	Complete	May-10	10 2011
			Performance was driven by trees non-preventable during minor storm an	ed a CPA.		<u></u> .
39	Logan	00700-81	Repaired CPA damage	Complete	May-10	
			Repair damage from minor storm	Complete	Feb-11	
			Performance was driven by trees non-preventable during a minor storm,	equipment failure an	d unknown.	40 2009
40	Lawell Avenue	00518-21	Repaired minor storm damage	Complete	May-10	1Q 2010 2Q 2010 3Q 2010
40	LOWCI AVEILUE	00010-01	Repaired equipment damage	Complete	Mar-11	
			2011 Circuit Inspection	To be completed 2011		10 2011

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedia) Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters
			Performance was driven by line failure, equipment failure, CPA and trees storm.	non-preventable dur	ing a minor	4Q 2009
41	Shawville	00151-21	Repaired line failure	Complete	May-10	20 2010
			Repaired CPA damage	Complete	Jan-11	3Q 2010
		ļ	Repaired minor storm damage	Complete	Feb-11	10 2011
42	Millcreek	00219-11	Performance was driven by wind and non-preventable tree damage durin	g minor storm.		2Q 2010 3Q 2010 4Q 2010
			Repair damage from minor storm	Complete	Apr-10	10 2011
43	Edinboro	00421-34	Performance was driven by equipment failure during minor storm.			2Q 2010 3Q 2010 4Q 2010
			Repair damage from minor storm	Complete	May-10	1Q 2011
		00147-22	Performance was driven by non-preventable trees, equipment failure and lightning damage during minor storm.			
44	Madera		Repair damage during minor storm	Complete	Apr-10	
			Repair lightning damage during minor storm	Complete	May-10	
			Full Cycle Tree Clearing	To be completed 2011		
45	Sautas	00624 72	Performance was driven by vandalism/theft.	<u>_</u>		
45	Saxion	00024-73	Repair damage from vandalism/theft.	Complete	Oct-10	
		ĺ	Performance was driven by trees non-preventable during minor storm.			
46	Beechwood	00201-11	Repair damage from minor storm	Complete	Jun-10	
			Full Cycle Tree Clearing	To be completed 2011		
47	Greenwood	00002-71	Performance was driven by equipment failure.			
4	47 Greenwood	00002-71	Repair equipment damage	Complete	Jul-10	
48	Monefield	00558.63	Performance was driven by egipment failure and line failure.			
40 	40 Mansheld		Repair Equipment/line failure	Complete	Feb-11	

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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 ar			
49	Hooversville	00019-12	Repair damage during minor storm	Complete	Sep-10	
			Repair damage during minor storm	Complete	Oct-10	
			Full Cycle Tree Clearing	To be completed 2011		
			Performance was driven by line failure, trees non-preventable and equipr	nent failure during a	minor storm.	
50	North Warren	00596-41	Repaired line failure damage	Complete	Nov-10	
			Repair damage during minor storm	Complete	Feb-11	
51	Seward	00075-11	Performance was driven by equipment failure and lightning damage durin			
	SCHERC	00010-11	Repair equipment failure	Complete	Nov-10	
		00030-12	Performance was driven by equipment failure and CPA.			
52	Somerset		Repaired equipment damage	Complete	Oct-10	
30	301161361		Repaired damage from CPA	Complete	Jan-11	
			2011 Circuit Inspection	To be completed 2011		
			Performance was driven by lightning damage and line failure during mino	r storm.		20 2010
53	Lake Como	00787-65	Targeted Mainline Reliability Equipment Replacement	Complete	Dec-09	3Q 2010 4Q 2010
			Repaired minor storm damage	Complete	May-10	1Q 2011
			Performance was driven by trees non-preventable and lightning during m an unknown cause.	linor storm, equipme	nt failure and	40 2009
			Perform mainline Reliability Inspection	Complete	Dec-09	10 2010
54	DuBois	00137-23	Reliability Coordinator to inspect circuit based on outage history	Complete	Feb-10	2Q 2010 3Q 2010 4Q 2010 1Q 2011
			Repaired damage from minor storm	Complete	Nov-10	
			Repaired damage from minor storm	Complete	Feb-11	
			Full Cycle Tree Clearing	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
55	Shelocta	00102-13	Performance was driven by line failure and forced outage due to structure	e fire.		
	Sinciocia	00102-13	Repaired line failure	Complete	Mar-11	
	56 Somerset	Performance was driven by line failure, vehicle damage and equipment failure during minor storm.				
56		00016-12	Repaired line failure	Complete	Ju⊢10	
			Repaired damage due to CPA	Complete	Jul-10	
			Performance was driven by equipment failure and line failure.			
57	Rockton Mountain	ain 00138-21	Repaired line failure	Complete	Jul-10	
			Repaired equipment failure	Complete	Feb-11	
			Targeted Mainline Reliability Equipment Replacement	To be completed 2011		
	Caviantes	00720 62	Performance was driven by equipment failure during minor storm.			
30	Covington	00729-03	Repaired equipment failure	Complete	Mar-11	
			Performance was driven by trees non-preventable during minor storms.			
59	Ralphton	00015-12	Repaired damage from minor storm	Complete	Sep-10	
. <u> </u>			Repaired damage from minor storm	Complete	Feb-11	
ſ			Performance was driven by CPA, equipment failure and equipment failure	during minor storm	·	
			Repair damage from CPA	Complete	Feb-10	10 2010
	Curryville	00644-71	Repaired damage from minor storm.	complete	Apr-10	20 2010
	<i>QUIIJUUU</i>		Review circuit for additional fault indicators	Complete	Oct-10	3Q 2010
			Targeted Mainline Reliability Equipment Replacement	Complete	Oct-10	44 2010
				Full Cycle Tree Clearing	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 equipment failure and trees non-preventable	during minor storm.			
			Reliability Coordinator to inspect circuit based on outage history	Complete	Feb-10		
			Repair Conditions found by previous reliability inspection	Complete	Feb-10	40 2009	
	Powell Ave	00237-31	Repaired damage from minor storm	Complete	Mar-10	1Q 2010	
			Repaired equipment failure - UG terminator	Complete	Ju⊨10	20 2010	
			Review circuit for additional fault indicators	Complete	Aug-10	40 2010	
			2011 Circuit Inspection	To be completed 2011			
ļ			Full Cycle Tree Clearing	To be completed 2011			
		00643-83	Performance was driven by trees non-preventable during minor storm ar	nd equipment failure.			
			Repair failed equipment	Complete	Jui-10		
	Cartisle Pike		Repair damage from minor storm	Complete	Sep-10		
			2011 Circuit Inspection	To be completed 2011			
			Add additional protection per circuit coordination	To be completed 2011			
			Performance was driven by equipment failure, trees non-preventable and lightning during minor storm.				
			Repair equipment damage	Complete	Jan-10	1Q 2010	
	Blairsville East	00080-13	Targeted Mainline Reliability Equipment Replacement	Complete	Jan-10	20 2010	
			Repair damage from minor storm	Complete	Sep-10	3Q 2010 4Q 2010	
			Full Cycle Tree Clearing	To be completed 2011		14.2010	
ļ			Performance was driven by vehicle damage and line failure.				
	Port Allegany Sub	00151-42	Repair damage from vehicle	Complete	Dec-10		
1			2011 Circuit Inspection	To be completed 2011			
			Performance was driven by lightning during minor storms, equipment an	d lîne failure.		4Q 2009 1Q 2010 2Q 2010	
	Dhilinehuro	00162-22	Repaired lightning damaged insulator	Complete	Aug-10		
	rimpsong	00102- <u>2</u> 2	Targeted Mainline Reliability Equipment Replacement	To be completed 2011			
			Add additional protection per circuit coordination	To be completed 2011		30 2010 40 2010	

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Rémedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters
Performance was driven by trees non-preventable during minor storm and an unknown car						
	Thompson	00436-65	Repair damage during minor storm	Complete	Jul-10	
			Full Cycle Tree Clearing	To be completed 2011		
			Performance was driven by equipment failure and an unknown cause.			4Q 2009 1Q 2010
1	Lake Como	00788-65	Repair equipment failure	Complete	Mar-10	20 2010 30 2010
			2011 Circuit Inspection	To be completed 2011		4Q 2010
			Performance was driven by line failure during minor storm.			
	Corry Central	00430-43	Repair damage during minor storm	Complete	Jun-10	
			Full Cycle Tree Clearing	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 driven by trees as cause at 53% of minutes an lightning as ca minutes from lightning and trees in the 6/12/10, 6/24/10 and 9/22/10 storms.	73% of circuit		
			Replaced 1 pole, 1 crossarm, and repaired one misc item identified during patrols	Complete	Apr-10	
			Perform accelerated circuit reliability assessment of three phase - No Priority 1 Findir	Complete	Apr-10	
		1	Perform accelerated circuit reliability assessment of mainline - No Priority 1 Findings	Complete	Apr-10	
			Perform accelerated circuit reliability assessment of three phase - No Priority 1 Findir	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-10	2Q 2010
1	Allen	00503_4	Forestry perform off cycle trim	Complete	Jul-10	3Q 2010
			Perform accelerated circuit reliability assessment of three phase - No Priority 1 Findir	Complete	Oct-10	4Q 2010 1Q 2011
			Perform accelerated circuit reliability assessment of mainline - No Priority 1 Findings	Complete	Oct-10	
			Replaced 1 crossarm and 1 other item identified during patrols	Complete	Nov-10	
			Perform SAIFI analysis initiative study	Complete	Jan-11	
			Engineering and Forestry Perform mainline vegetation assessment	Complete	Jan-11	
			Findings	Complete	Mar-11	
			Perform accelerated circuit reliability assessment of mainline - No Priority 1 Findings	Complete	Mar-11	
			Installed new singe phase trip and lockout recloser identified in SAIFI Analysis	Complete	Apr-11	
<u> </u>			Forestry to perform on cycle comprehensive circuit Tree Trim in 2011	To be completed in 2011		
			Performance was driven by line failure, equipment failure and non-preven due to line failure during storm restoration on 11/18/10 while back-feeding	table trees. 50% of circ other circuits.	uit minutes	
1			Repair critical items identified from backbone assessment and circuit patrol	Complete	Sep-09	
]	Perform accelerated backbone assessment	Complete	Jan-10	4Q 2009
			Perform accelerated three phase assessment	Complete	Jan-10	10 2010
2	Shawnee	00822-3	Install fault Indicators	Complete	Apr-10	20 2010
_			Perform accelerated single phase assessment	Complete	Jun-10	30 2010
		i i	Perform SAIFI analysis initiative study	Complete	<u>Jan-11</u>	40 2010
			Perform accelerated backbone and three phase assessment	Complete	Mar-11	142.011
			Install Fault Indicators	To be completed in 2011		
			Replace current limiting fuses on step transformers	To be completed in 2011		
l			Repair critical items identified from circuit patrol	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 4 of 6 Quarters
			Performance driven by trees non-preventable (86%) 5 large outages occur	red during a small stor	m June 24 to	
1			25, 2010, additional Large tree caused outage on 10/5/10 and five lengthy ou	tages during the Feb. 2	, 2011 lce	
			Storm, additionally there were two car-pole accidents.		<u> </u>	
			Install Additional Tap Fuse	Complete	Dec-09	20.2010
1		{	Perform accelerated backbone assessment	Complete	Mar-10	30 2010
3	Birdsboro	00757-1	Perform accelerated three phase assessment	Complete	Mar-10	40 2010
			Comprehensive Tree Trimming	Complete	Jul-10	10 2011
			Upgrade T-12 Tie Recloser	Complete	Oct-10	
			Install mainline fault indicators 3 locations	Complete	Jan-11	
			Perform accelerated three phase assessment	To be completed in 2011		
			Perform accelerated backbone assessment	To be completed in 2011		
[Performance driven by tree as cause at 93% of circuit minutes and 63% of i	minutes from trees du	ring the	
			9/22/10 storm			
			Perform accelerated circuit reliability assessment of three phase	Complete	Oct-09	
			Perform accelerated circuit reliability assessment of mainline	Complete	Dec-09	
		00502-4	Perform accelerated circuit reliability assessment of three phase	Complete	Apr-10	
4	Allen		Perform accelerated circuit reliability assessment of mainline	Complete	Apr-10	
			Replaced 2 crossarms and 1 other item identified during Line patrol	Complete	May-10	
			Perform accelerated circuit reliability assessment of three phase - No Priority 1 Findin	Complete	Oct-10	
			Perform accelerated circuit reliability assessment of mainline - No Priority 1 Findings	Complete	Oct-10	
			Install fault indicators 4 locations	Complete	Nov-11	
			Perform accelerated backbone assessment	To be completed in 2011		
			Forestry to perform on cycle comprehensive circuit Tree Trim in 2011	To be completed in 2011		
1			Performance was primarily driven by tree caused outages to shared trans	mission and distribution	on poles (72%)	
			and dropping the substransmission feed to the sub to prevent overload (2	21%)		
			3 Phase assessment of circuit	Complete	_Aug-10	
		00750 0	Repair ridge pin on 3 phase backbone	Complete	Nov-10	
5	Myerstown	00750-2	Replace crossarm on 3 phase backbone	Complete	Nov-10	
			Perform accelerated backbone assessment	Complete	<u>Mar-11</u>	
-	ļ	1 1	Install Fault Indicators 15 locations	Complete	Feb-11	
			Extend 3 phase, balance load and add fusing to northern portion of circuit	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 4 of 6 Quarters	
		Performance driven by non-preventable tree caused outages (89% of minutes).					
			Perform accelerated backbone assessment	Complete	Oct-09		
		Į	Perform accelerated assessment on the circuit backbone and 3 phase of the circuit after a wind storm	Complete	Oct-10		
			Repair critical items identified from backbone assessment	Complete	Oct-10		
6	Crossroads	00728-4	Forestry to perform assessment of 3 phase cross-country R/W	Complete	Nov-10		
			Forestry to remove critical trees identified from cross-country assessment	Complete	Nov-10		
			Perform accelerated backbone assessment	Complete	Mar-11		
			Forestry to perform on cycle comprehensive circuit Tree Trimming	To be completed in 2011			
			Repair high priority items identified from circuit assessment	To be completed in 2011			
			Install additional Fault Indicators	To be completed in 2011			
	Dillsburg		Performance driven by tree as cause at 94% of minutes. 14% of circuit min and 70% of circuit minutes by trees in the 9/22/10 storm.	utes by trees in the 4/1	6/10 storm		
			Fertions	Complete	Dec 09		
			Denlace 3 insulators and 1 misc item found during Line natrol	Complete	lan_10	4Q 2009 1Q 2010 2Q 2010 3Q 2010 4Q 2010	
		00746-4	Perform accelerated circuit reliability assessment of three phase. No Priority 1 finding	Complete	10		
7			Perform accelerated circuit reliability assessment of minipa. No Prinrity 1 findings	Complete	Apr-10		
			Forestry to perform on cycle comprehensive circuit Tree Trim in 2010	Complete			
				Complete	Dec-10	1Q 2011	
		1	Perior SAIFT analysis millative study	Complete	J8II-11		
			Derform accelerated circuit reliability assessment of three phase. No Driotity 1 Sindir	Complete	Jan-11		
			Perform accelerated calculational assessment of three phase - no monty i fully	Complete	Mar-11		
			Performance was primarily driven by vehicle accidents (40%), forced outag	ges to ensure public sa	tety (13%) and		
			Accelerated circuit assessment 3 phase	Complete	Eeb.10		
			Spot Trimming along Ridge Road	Complete	Dec-10		
			Replace Underground Cable along Bassler Drive, Rhodes Drive, Chestnut Rd and		000-10		
8	Swatara Hill	00763-2	Koch Ln	Complete	Dec-10		
			Replace recloser along Steinruck Road	Complete	Jan-11		
			Correct 3 coordination issues	Complete	Mar-11		
1			Perform accelerated backbone assessment	To be completed in 2011			
			Install additional disconnect switches	To be completed in 2011			
			Install fault indicators 4 locations	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 4 of 6 Quarters	
			Performance driven by trees non-preventable (93%) three large outages of 24-25, 2010. There was an additional tree caused outage on Sept. 30, 2010 occurred Feb 2-5, 2011(Ice Storm).	occurred during a small and two additional tree	storm June outages that		
]			Perform Fault Current Indicator Installation Engineering Study	Complete	Oct-09		
			Install Fault Current Indicators at six locations	Complete	Dec-09		
		i i	Forestry to perform on cycle comprehensive circuit Tree Trimming	Complete	Jul-10	40 2009	
			Upgrade T-12 Tie Recloser	Complete	Oct-10	10 2010	
9	Birdsboro	00756-1	Install Fault Indicators 1 add'i Mainline Location	Complete	Nov-10	1 20 2010 20 2010	
			Perform SAIFI analysis initiative study	Complete	Jan-11	40 2010	
			Replace Mainline Tie-Switch (tree damaged)	Complete	Feb-11	10 2011	
			Perform accelerated backbone assessment	Complete	Mar-11		
			Perform accelerated three phase assessment	Complete	Mar-11	1	
			Install Single Phase Electronic Sectionalizer	To be completed in 2011		1	
{		1	Repair high priority items identified during circuit assessment	To be completed in 2011]		
			Forestry to perform off cycle patrol and trim	To be completed in 2011			
		000000 0	Performance was driven by equipment failure, non-preventable trees and vehicle accidents.				
			Study Additional Backbone Protection	Complete	Aug-09	l l	
			Perform accelerated backbone assessment	Complete	Mar-10	1	
ļ			Perform accelerated three phase assessment	Complete	Mar-10	40, 2009	
			Perform accelerated single phase assessment	Complete	Sep-10		
10	East Hill		Perform SAIFI analysis initiative study	Complete	Jan-11	1 2Q 2010 3Q 2010	
	гохра	00010-3	Perform accelerated backbone and three phase assessment	Complete	Mar-11	40 2010	
		1	Correct fuse miscoordinations identified during SAIFI analysis	To be completed in 2011		10 2011	
ļ		ļ	Install Fault indicators	To be completed in 2011			
			Study automation of sectionalizer on circuit	To be completed in 2011			
			Replace current limiting fuses on step transformers	To be completed in 2011			
			Forestry to perform off cycle patrol and trim	To be completed in 2011			
 			Performance was driven by non-preventable trees, and equipment failure	, ,		T	
Į		l	Install radio control communication equipment on existing automation	Complete	Aug-09		
1			Main Line Back Bone protection (lateral fusing)	Complete	Nov-09	1	
ľ			Perform accelerated three phase and backbone assessment	Complete	Jan-10	1 40 2009	
11	Shawnee	00895-3	Install Fault Indicators	Complete	Apr-10	1 10 2010	
			Perform SAIFI analysis initiative study	Complete	Jan-11	10 2011	
			Perform accelerated three phase and backbone assessment	Complete	Mar-11	1	
1]	Replace current limiting fuses on step transformers	To be completed in 2011]	
			Operate and maintain circuit tie switches	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 4 of 6 Quarters
			Performance was driven by non-preventable trees and equipment failure.	,		
			Perform accelerated backbone assessment	Complete	Mar-10	
			Perform accelerated three phase assessment	Complete	Mar-10	4Q 2009
ſ			Forestry to perform on cycle comprehensive circuit Tree Trimming	Complete	Jun-10	10 2010
12	No Bangor	00826-3	Perform SAIFI analysis initiative study	Complete	Jan-11	20 2010
12	no bangoi	00020-5	Perform accelerated backbone and three phase assessment	Complete	Feb-11	30 2010
			Perform in depth inspection of backbone fuses	Complete	Apr-11	40 2010
			Operate and maintain circuit tie switches	To be completed in 2011		10.2011
			Replace current limiting fuses on step transformers	To be completed in 2011		
			Install new electronic recloser	To be completed in 2011		
			Performance was driven by non-preventable trees, equipment failure and	vehicle accidents.		_
•			Study Downtown Bath Sectionalization	Complete	Jul-09	40 2009
			Study Bath Substation Automation	Complete	Ju⊢09	
			Perform accelerated three phase assessment	Complete	Jan-10	
			Forestry to perform on cycle comprehensive circuit Tree Trimming	Complete	Mar-10	
1			Perform accelerated backbone assessment	Complete	Ju⊢10	
			Perform accelerated single phase assessment	Complete	Sep-10	
13	Bath	00873-3	Repair critical items identified from circuit patrol	Complete	Sep-10	40 2010
			Install additional backbone fusing and faulted circuit indicators	Complete	Dec-10	10 2011
1			Perform SAIFI analysis initiative study	Complete	<u>Jan-1</u> 1	
i		Į	Perform accelerated backbone and three phase assessment	Complete	Mar-11	
			Correct fuse miscoordinations identified during SAIFI analysis	To be completed in 2011		
			Replace current limiting fuses on step transformers	To be completed in 2011		
			Install new electronic recloser	To be completed in 2011		
[L	Install remote control on Bath substation recloser	To be completed in 2011		
_		Performance driven by non-preventable trees, equipment failure and vehicle accidents.		icle accidents.		
ļ			Perform accelerated backbone assessment	Complete	Apr-10	
14	No Bangor	00813-3	Perform accelerated three phase assessment	Complete	Apr-10	
'	no bangoi		Perform accelerated backbone and three phase assessment	Complete	Apr-11	ļ
		1	Perform in depth inspection of backbone fuses	Complete	Apr-11	
			Forestry to perform on cycle comprehensive circuit Tree Trimming	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 4 of 6 Quarters	
Ī		Performance driven by two August 2010 mainline vehicle pole contacts as cause at 52% of circuit minutes and a					
			crimp failure on 12/12/10 at 15% of circuit minutes.	r	ŕ		
			Replaced 2 poles, 2 crossarms, 15 insulators and 3 cutouts found during line patrol	Complete	Jan-10		
15	Orrtanna	00764-4	Install animal guard 3 locations	Complete	Jun-10		
			Perform accelerated circuit reliability assessment of three phase	Complete	Sep-10		
			Perform accelerated circuit reliability assessment of mainline	Complete	Sep-10		
			Perform accelerated backbone assessment	To be completed in 2011			
			Forestry to perform on cycle comprehensive circuit Tree Trim in 2011	To be completed in 2011			
	-		Performance was primarily driven by tree caused outages (27%) and wind	damage (50%).			
			Accelerated circuit assessment 3 phase	Complete	May-10	2Q 2010 3Q 2010 4Q 2010 1Q 2011	
	Annville	00742-2	Post storm assessment due to excessive damage	Complete	Jun-10		
16			Install GOAB to sectionalize	Complete	Sep-10		
			Perform accelerated backbone assessment	Complete	Mar-11		
			Install Fault Indicators on 3 phase 6 locations	To be completed in 2011		1	
			Comprehensive Tree Trimming	To be completed in 2011			
				Performance was primarily driven by a vehicle accident (13%) and the dam storm (82.5%).	lage done by the June 2	24, 2010 wind	
			Install New Recloser and remove existing recloser	Complete	Aug-10]	
1			Accelerated circuit assessment 3 phase	Complete	Aug-10	20 2010	
			Replace insulator on 3 phase backbone	Complete	Aug-10	30 2010	
1/	Grantville	00721-2	Replace blown arrestor on 3 phase backbone	Complete	Nov-10	4Q 2010	
			Replace failing crossarm on 3 phase backbone	To be completed in 2011		10 2011	
			Perform accelerated backbone assessment	To be completed in 2011			
			Replace insulator on 3 phase backbone	To be completed in 2011	1		
			Correct 4 coordination issues	To be completed in 2012			
			Performance was driven by equipment failures (41%), tree damage (24%) :	and conductor failure (1	3%).		
			Accelerated circuit assessment 3 phase	Complete	Jun-10		
			Install Mainline 3 phase switch	Complete	Sep-10	2Q 2010	
18	North Cornwall	00610-2	Replace solids with fuses and move 4 spans upstream	Complete	Sep-10	- 3Q 2010	
			Replace arrestors 2 locations on 3 phase backbone	Complete	Mar-11	40 2010	
			Perform accelerated backbone assessment	To be completed in 2011		144.011	
			Forestry to perform off cycle patrol and trim	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 4 of 6 Quarters
		T	Performance driven by non-preventable tree causeD outages (93% of mini	utes).		
			Perform accelerated backbone assessment	Complete	Oct-09	
			Perform Accelerated backbone and three phase assessment	Compiete	May-10	
			Install additional Fault indicators	Complete	Feb-11]
19	Bit	00737-4	Forestry to perform spot assessment of tree prone outage area	Complete	Mar-11	
			Forestry to perform follow-up tree work as result of spot assessment	Complete	Mar-11	
			Install sectionalizer	To be completed in 2011		
			Install an additional recloser to protect the circuit 3 phase	To be completed in 2011		
			Perform accelerated backbone assessment	To be completed in 2011		
			Forestry to perform on cycle comprehensive circuit Tree Trimming	To be completed in 2012		
		T	Performance driven by a wind storm that caused non-preventable tree ou	tages (43% of minutes).	•	
			Crossarm and arrestor repairs	Complete	Jul-09	10 2010
			Installed additional Fault Indicators	Complete	Dec-09	
			Perform Accelerated circuit three phase backbone assessment after wind storm	Complete	Feb-10	
	Yorkana	00708-4	Perform accelerated assessment on the circuit backbone and 3 phase of the circuit	_		20 2010
20			after a major hail storm	Complete	May-10	3Q 2010 4Q 2010
			Perform thermal scan of the circuit three phase backbone	Complete	Aug-10	
			Repair critical items identified from backbone assessment after wind storm	Complete	Dec-10	10 2011
			Perform SAIFI analysis initiative study	Complete	Jan-11	
)	Perform accelerated backbone assessment	Complete	Feb-11	
			Replaced damaged recloser found during repair of hot spot identified from thermal		•• ••	
		<u> </u>		Complete	Mar-11	
			Performance driven by insulator equipment failure (fuses and CLF's) and	non-preventable trees	and animals.	-
			Perform accelerated three phase assessment	Complete	Jan-10	-
			Repair items identified from three phase assessment	Complete	Feb-10	10 2010
		l	Install radio control communication equipment on sectionalizer	Complete	Jul-10	20 2010
21	Shawnee	00860-3	Perform fuse and coordination study	Complete	Sep-10	30 2010
			Perform accelerated backbone and three phase assessment	Complete	Mar-11	40 2010
			Install Fault Indicators	To be completed in 2011		10 2011
			Replace current limiting fuses on step transformers	To be completed in 2011		
			Operate and maintain circuit tie switches	To be completed in 2011		
			Repair critical items identified from circuit patrol	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 4 of 6 Quarters
		•	Performance driven by trees non-preventable, four large outages occurre 2010, two additional tree outages on May 8-12th 2010, five lengthy outages and a large UG outage on February 22, 2011 due to UG Cable Issues.	ed during a small storm during the February 2, 3	June 24-25, 2011 Ice Storm	
			Install Additional Tap Fuses	Complete	Dec-09	
			Upgrade Fuses to Improve Tie Capability	Complete	Dec-09	
ļ		ļ	Install Additional Mainline Disconnects	Complete	Dec-09	20 2010
2	Ch da a 1195-	00777 4	Crossarm Brace/Ground/Guy Wire Repairs	Complete	Dec-09	30 2010
22	riying Hus	00777-1	Perform accelerated backbone assessment	Complete	Apr-10	40 2010
			Perform accelerated three phase assessment	Complete	Apr-10	10 2011
			Perform accelerated backbone assessment	Complete	Feb-11	
			Perform accelerated three phase assessment	Complete	Feb-11	
			Install Fault Indicators 9 Locations	To be completed in 2011		
1]	Forestry to perform off cycle patrol and trim	To be completed in 2011		
			Forestry to perform on cycle comprehensive circuit Tree Trim in 2012	To be completed in 2012		
	<u></u>	<u> </u>	Circuit performance was driven by non-preventable tree cause outgoes (59% of minutes)		
			Perform accelerated backbone and three phase assessment after storm	Complete	Aug-09	
		00793-4	Perform accelerated backbone and three phase assessment	Complete	Aug-10	
			Perform accelerated assessment on the circuit backbone and 3 phase of the circuit			
23	Toina		after a wind storm	Complete	Oct-10	
			Repair 2 condition items identified during Circuit assessment	Complete	Feb-11	
			Perform accelerated backbone assessment	Complete	Feb-11	1
			Forestry to perform on cycle comprehensive circuit Tree Trimming	To be completed in 2011		
l			Install two reclosers to protect the circuit backbone.	To be completed in 2011	i	
			Performance driven by trees non preventable during two small storms ar addition, 10% of circuit minutes were derived from circuit breaker failure.	nd the Feb 2, 2011 ice st	orm. In	
			Install Main-line Tap fuses	Complete	-0-1-0-9	1
			Perform Fault Current Indicator Installation Engineering Study	Complete	Mar-10	
		ļ	Install Fault Current indicators at seven locations	Complete	May-10	
1			Perform SAIFI analysis initiative study	Complete	Jan-11	10 2010
1			Replace overloaded fuse with a single phase recloser, upgrade a fuse	·		20 2010
24	Barto	00705-1	downstream of this location/ install fault indicators	Complete	Ingi-11	30 2010
			Install Fault indicators on a heavily wooded section downstream of the new single phase recloser as 3 locations	Complete	Mar-11	4Q 2010 1Q 2011
	1		Perform accelerated backbone assessment	Complete	Mar-11	
		[Perform accelerated three phase assessment	Complete	Mar-11	
[Instali 2 additional New mainline 3 phase reclosers	To be completed in 2011		
			Install additional fusing 3 single phase locations	To be completed in 2011		
			Forestry to perform off cycle patrol and trim	To be completed in 2011		

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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
[<u> </u>	Performance was primarily driven by tree caused outages, wind damage and UG ca	ble failures (11.5%).	<u> </u>	
			Forestry to perform mid-cycle assessment of 3-phase backbone	Complete	Dec-09	
			Replace UG cable along Gentry Drive	Complete	Jan-10	
			Accelerated circuit assessment 3 phase	Complete	May-10	10 2010
			Post storm assessment due to excessive damage	Complete	Jun–10	2Q 2010
25	Campbelltown	00731-2	Forestry to perform mid-cycle assessment of remaining 3-phase	Complete	Sep-10	30 2010
			Perform accelerated backbone assessment	Complete	Mar-11	40 2010
ł			Perform SAIFI analysis initiative study	Complete	Feb-11	10,2011
			Install Fault Indicators on 3 phase 6 locations	To be completed in 2011		
1			Trim locations identified in forestry review	To be completed in 2011		
			Repair high priority items identified during circuit assessment	To be completed in 2012		
26	N Hanover	00514-4	Performance driven by the June 4 wind storm as cause of 79% of circuit m of circuit minutes from trees as cause during 7/19/10 storms. Perform accelerated circuit reliability assessment of mainline - No Priority 1 Findings Findings Perform accelerated circuit reliability assessment of mainline - No Priority 1 Findings Replace 1 chipped cutout found during Line patrol Forestry perform off cycle three phase vegetative patrol Perform accelerated backbone assessment Forestry to perform on cycle comprehensive circuit Tree Trim in 2012	Complete Complete Complete Complete Complete Complete Complete To be completed in 2011 To be completed in 2012	Oct-09 Dec-09 Jul-10 Jul-10 Mar-10 Jan-11	2Q 2010 3Q 2010 4Q 2010 1Q 2011
	·		Performance driven by trees non-preventable (60%) and equipment proble	ems (37%).		
			Crossarm and arrestor repairs	Complete	Jul-09	
		ł	Comprehensive Tree Trimming	Complete	ງກ⊢0 3	
			Perform accelerated backbone assessment.	Complete	Mar-10	
27	Ringing Rocks	00708-1	Perform accelerated three phase assessment.	Complete	Mar-10	
			Install Mainline Fault Finders 4 Locations	Complete	Sep-11	
			Install add'I fusing 2 locations	Complete	Nov-11	
			Perform accelerated backbone assessment.	To be completed in 2011		
			Perform accelerated three phase assessment.	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 4 of 6 Quarters
28	Birchwood	00624-3	Performance was driven by line failure and non-preventable trees. 57% of during storm on 12/27/10 and cold load pickup during restoration.	f circuit minutes due to	line failure	
20	Dacattrood	00024-0	Perform accelerated backbone assessment	To be completed in 2011		
L			Study phase balancing to relieve unbalance during cold load pickup	To be completed in 2011		
		· ·	Performance driven by non-preventable tree caused outages.			
			Perform line patrol of high line failure area of the circuit	Complete	Dec-09	
		l	Repair critical items identified from the Backbone Assessment	Complete	Dec-09	
		ewberry 00576-4	Perform accelerated assessment on the circuit backbone and 3 phase of the circuit	Complete	Feb-10	4Q 2009 1Q 2010 2Q 2010 3Q 2010 4Q 2010 1Q 2011
	Newberry		Forestry to perform on cycle comprehensive circuit Tree Trimming	Complete	Mar-10	
29			Perform accelerated assessment on the circuit backbone, 3 phases of the circuit and a portion of the single phase	Complete	Jun-10	
			Perform accelerated circuit single phase assessment	Complete	Jul-10	
			Perform accelerated assessment on the circuit backbone and 3 phase of the circuit after a wind storm	Complete	Oct-10	
			Install additional Fault Indicators on the circuit	Complete	Nov-10	
			Perform accelerated backbone assessment	Complete	Mar-11	
			Install three radio controlled switches and recloser with fault indicators	To be completed in 2011		
			Performance driven by equipment and line problems, animal, CPA, lightning	ng and tree caused out	iges.	
		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 main-line Switch	Complete	Feb-10	40 2009
30	Bernville	00786-1	Perform accelerated backbone assessment	Complete	Mar-10	20 2010 40 2010
			Perform accelerated three phase assessment	Complete	Mar-10	10 2010
			Replace 1 mainline 3 phase recloser and move it to a more effective location	To be completed in 2011		
			Install 1 Additional New Mainline 3 phase recloser	To be completed in 2011		
			Install 3PH mainline fault indicators 2 locations	To be completed in 2011		
			Perform accelerated backbone assessment	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 4 of 6 Quarters
			Performance driven by CPA, animal caused outage, UG problems and tree	caused outages.		
			Perform accelerated three phase and backbone assessment	Complete	Apr-09	
			UG Cable Replacement Sunny Slopes	Complete	Aug-09	
ļ		ļ	Install QH Fault indicators at two locations	Complete	Mar-10	
31	Bern Church	00789-1	Guy Wire Repairs at three locations	To be completed in 2011		
			Perform accelerated backbone assessment.	To be completed in 2011		
			Perform accelerated three phase assessment.	To be completed in 2011		
ł		1	Install OH Fault indicators at a three phase sectionalizing location.	To be completed in 2011		
			Forestry to perform on cycle comprehensive circuit Tree Trimming	To be completed in 2011		
		00676-4	Performance driven by trees at 47% of circuit minutes; in the 9/22/10 storm animal contact in a three phase bank on 10/17/10 for 22% of circuit minutes	n at 29% of circuit minut	es and an	
			Forestry to perform on cycle comprehensive circuit tree trim in 2009	Complete	Nov-09	
32	Straban		Perform normal circuit reliability assessment of mainline	Complete	Jul-10	
			Perform normal circuit reliability assessment of three phase	Complete	Jul-10	
			Replaced 1 crossarm	Complete	Mar-10	
			Perform accelerated backbone assessment	To be completed in 2011		
			Performance driven by non-preventable tree cause outages (90% of minut	tes).		
			Perform accelerated backbone assessment	Complete	Oct-09	
			Perform Accelerated backbone and three phase assessment	Complete	May-10	
22	មរា	00735 4	Forestry to perform spot assessment of tree prone outage area	Complete	Mar-11	
33	tam	00133-4	Install additional Fault indicators	To be completed in 2011		
			Perform accelerated backbone assessment	To be completed in 2011	ļ	
			Install an additional recloser to protect the circuit 3 phase	To be completed in 2012		
			Forestry to perform on cycle comprehensive circuit Tree Trimming	To be completed in 2012		

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Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters
			Performance driven by non-preventable tree caused outages and equipm	ent problems.		
			Repair critical items identified from Comprehensive Circuit Patrol	Complete	Sep-09	
1			Install 5 additional sectionalizing switches	Complete	Nov-09	
		1	Perform accelerated assessment on the 3 phases of the circuit	Complete	Nov-09	
			Repair critical items identified from backbone assessment	Complete	Dec-09	
			Perform removal of danger trees	Complete	Dec-09	
ļ	ļ	ļ	Install additional fuses to protect the circuit backbone	Complete	Dec-09	4Q 2009
			Perform danger tree removal on the tree problem areas of the circuit	Complete	Dec-09	1Q 2010
34	Yorkana	00715-4	Installed additional Fault Indicators	Complete	Dec-09	20 2010 30 2010 40 2010 10 2011
			Perform Accelerated assessment on the circuit backbone including all three and			
			single phases of the circuit after a major hail storm.	Complete	May-10	
			Perform accelerated circuit three phase backbone assessment and record the	A 11		
				Complete	Jul-10	
			Install three radio controlled switches with fault indicators	Complete	Aug-10	
			Perform thermal scan of all splices on the circuit three phase backbone	Complete	Aug-10	
			Perform SAIFI analysis initiative study	Complete	Jan-11	
1			Perform accelerated backbone assessment	Complete	Feb-11	
!			Forestry to perform off cycle patrol and trim	Complete	Mar-11	· · ·
			Performance was driven by non-preventable trees, equipment failure and	vehicle accidents		
35	No Bangor	00838-3	Perform accelerated assessment on the circuit backbone and 3phase of the circuit	Complete	Feb-11	
<u> </u>			Forestry to perform on cycle comprehensive circuit tree trimming	To be completed in 2011		
			Performance driven by two failures of the 336 AASP (spacer construction) 77% of circuit minutes from the 6/27/10 failure.	mainline at 84% of circu	lit minutes;	
			Replaced 1 pole, 3 crossarms, and 2 miscellaneous items	Complete	Sep-09	
36	Roundtop	00583-4	Installed fault indicators 6 locations	Complete	Aug-10	
1			Replaced 3 poles, 5 insulators, 2 arrestors, 3 crossarms, and 5 miscellaneous items	Complete	Nov-11	
1			Perform detailed circuit reliability assessment of backbone	Complete	Mar-11	
			Perform detailed circuit reliability assessment of 3 phase	Complete	Mar-11	
` <u></u>	. <u></u>	<u> </u>	Performance was driven by a loss of supply and a vehicle accident			···
37	Clearfield	00631-3	Perform accelerated assessment on the circuit backbone	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 4 of 6 Quarters
			Performance driven by switch failure (89% of the minutes) and an animal c	aused substation outag	je.	
			Perform accelerated three phase and backbone assessment	Complete	Dec-09	
!			Replace Switch T1-156 w/ 600 A Disc.	Complete	Jan-10	
			Replace Switch T3-153 w/ 600 A Disc.	Complete	Jan-10	40.0000
1			Replace Switch 15336 w/ 600 A Disc.	Complete	Jan-10	40 2009
4	19th and Cotton	00153-1	Replace Switch T1-153 w/ 600 A Disc.	Complete	Jan-10	20 2010
1			Replace Switches 13629 & 13659 w/ 600 A Disc.	Complete	Jan-10	30 2010
			Installed Animal Guard on Substation Equipment	Complete	Jui-10	
			Install Fuse Bypass Switch	Complete	Nov-10	
			Perform accelerated backbone assessment	To be completed in 2011		
			Install Mainline Fault Indicators 4 Locations	To be completed in 2011		
[]			Performance driven by a vehicle causeD outage during a wind storm (72%	of minutes).	tes).	
			Perform accelerated assessment on the circuit backbone	Complete	Oct-09	
			Perform accelerated assessment on the circuit backbone and 3 phase of the circuit	Complete	Feb-10	1Q 2010
ļ	Newberry	00586-4	Perform accelerated assessment on the circuit backbone and 3 phase of the circuit.	Complete	Jun-10	20 2010 30 2010
			Forestry to perform on cycle comprehensive circuit Tree Trimming	Complete	Jun-10	40 2010
			Perform accelerated backbone assessment	To be completed in 2011		
			Install fault indicators on the circuit three phase backbone.	To be completed in 2011		
[Performance driven by trees non-preventable and recloser outages caused by a ca	p bank problem and a pol	e fire	
			Install Main-line Tap fuses	Complete	Jun-09	
			Crossarm, insulator and arrestor repairs	Complete	Feb-10	40 2009
	Po de	00700 4	Perform accelerated backbone assessment	Complete	Mar-10	1Q 2010
		00700~1	Perform accelerated three phase assessment	Complete	Mar-10	2Q 2010
			Perform Fault Current Indicator Installation Engineering Study	Complete	Mar-10	40 2010
			Install Fault Current Indicators at ten locations	Complete	May-10	1
1			Perform accelerated backbone assessment	Complete	Feb-11	

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Met-B	d						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work Completed	Appeared in 4 of 6 Quarters	
1			Performance driven by a one vehicle contact caused outage (66% of minut	ance driven by a one vehicle contact caused outage (66% of minutes).			
		1	Perform accelerated assessment on the circuit backbone	Complete	Oct-09		
-			Perform accelerated assessment on the 3 phases of the circuit	Complete	Dec-09	10 2010	
	Pleasureville	00710-4	Perform accelerated assessment on the circuit backbone and 3 phases of the circuit	Complete	Ju⊢10	20 2010	
			Forestry to perform on cycle comprehensive circuit Tree Trimming	Complete	Dec-10	40 2010	
			Install fault indicators on the circuit three phase backbone.	Complete	Dec-10	44 2010	
			Install additional fuses to protect the circuit backbone	To be completed in 2011			
<u> </u>			Perform accelerated backbone assessment	To be completed in 2011			
-			Performance was primarily driven by tree caused outages, UG conductor	failures and a recloser t	ailure.		
		i i	Comprehensive Tree Trimming	Complete	Nov-09		
			Accelerated circuit assessment 3 phase	Complete	Apr-10		
		00712-2	Reconfigure Circuit/Minimize Exposure	Complete	Apr-10	4Q 2009 1Q 2010 2Q 2010 3Q 2010	
	North Lebanon		Install fuses 4 locations	Complete	Sep-10		
			Perform SAIFI analysis initiative study	Complete	Feb-11		
			Perform accelerated backbone assessment	Complete	Mar-11		
			Install additional mainline switch	To be completed in 2011			
			Repair high priority items identified during circuit assessment	To be completed in 2012			
[Performance was primarily driven by tree caused outages and cutout failu	ires			
			Accelerated circuit assessment 3 phase	Complete	May-10		
			Post storm assessment due to excessive damage	Complete	Jun-10	40 2009	
	Annville	00743-2	Forestry Patrol of Backbone and all of Three-Phase along Lancaster Ave	Complete	Oct-10	20 2010	
			Install additional disconnect switches	Complete	Mar-11	30 2010	
			Perform accelerated backbone assessment	To be completed in 2011			
<u> </u>			Comprehensive Tree Trimming	To be completed in 2011			
[Circuit performance was driven by storm events (94% of minutes)				
			Perform Accelerated circuit three phase backbone assessment	Complete	Oct-09		
			Install additional fuses to protect the circuit backbone	Complete	Dec-09		
		ľ	Perform Accelerated circuit three phase backbone assessment after wind storm	Complete	Jul-10	10 2010	
			Investigate additional Fault Indicators	Complete	Ju⊢10	20 2010	
	Windsor	00795-4	Install additional Fault Indicators	Complete	Aug-10	30 2010	
			Perform accelerated assessment on the circuit backbone and 3 phase of the circuit after a wind storm	Complete	Oct-10	40 2010	
			Perform Accelerated circuit three phase backbone assessment after wind storm	Complete	Feb-11		
			Perform accelerated backbone assessment	Complete	Feb-11		
<u> </u>			Forestry to perform on cycle comprehensive circuit Tree Trimming	To be completed in 2012			

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BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Joint 1st Quarter 2011 Reliability Report : Public Version – Pennsylvania Power : Company, Pennsylvania Electric Company : and Metropolitian Edison Company - : Pursuant to 52 Pa. Code § 57.195(d) and (e) :



APR 2 9 2011

PA PUBLIC UTILITY COMMISSION SECRETARY'6 BUREAU

CERTIFICATE OF SERVICE

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

Service by overnight United Parcel Service, as follows:

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

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

Irwin Popowsky, Esq. Tanya McCloskey, Esq. Office of Consumer Advocate 5th 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 2nd 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 <u>dgill@state.pa.us</u> <u>bloper@state.pa.us</u>

Dan Searfoorce Bureau of Fixed Utility Services Pennsylvania Public Utility Commission <u>dsearfoorc@state.pa.us</u> Dated: April 30, 2010

Original Signed:

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

