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**FEDERAL EXPRESS**

October 29, 2010

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

**RECEIVED**  
OCT 29 2010  
PA PUBLIC UTILITY COMMISSION  
SECRETARY'S BUREAU

**Re: PPL Electric Utilities Corporation  
Quarterly Reliability Report for the  
Period Ended September 30, 2010  
Docket No. L-00030161**

Dear Ms. Chiavetta:

Enclosed for filing on behalf of PPL Electric Utilities Corporation ("PPL Electric") are an original and five (5) copies of PPL Electric's Quarterly Reliability Report for the Period Ended September 30, 2010. Also enclosed, in a sealed envelope, is a copy of the report containing competitively sensitive and proprietary information. The Company hereby requests that the Commission treat that information, and the report containing the information, as privileged and confidential. The report is being filed pursuant to the Commission's Final Rulemaking Order adopted May 7, 2004 in the above-captioned docket.

Pursuant to 52 Pa. Code § 1.11, the enclosed document is to be deemed filed on October 29, 2010, which is the date it was deposited with an overnight express delivery service as shown on the delivery receipt attached to the mailing envelope.

In addition, please date and time-stamp the enclosed extra copy of this letter and return it to me in the envelope provided.

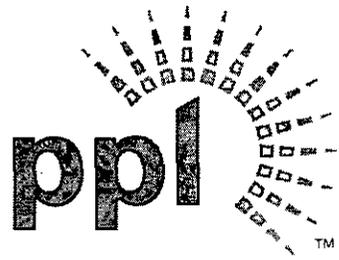
If you have any questions regarding this document, please call me or Joseph M. Kleha, PPL Electric's Manager-Regulatory Compliance and Rates at (610) 774-4486.

Very truly yours,

Paul E. Russell

Enclosures

cc: Mr. Darren Gill  
Mr. Daniel Searfoorce



**PPL Electric Utilities**

**PPL Electric Utilities Corporation  
Quarterly Reliability Report  
to the  
Pennsylvania Public Utility Commission**

*October 2010*

**RECEIVED**

OCT 29 2010

PA PUBLIC UTILITY COMMISSION  
SECRETARY'S BUREAU

- 1) *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.*

There were no events during this quarter that met the criteria for a major event.

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

The following table provides data for the 12 months ended September 30, 2010.

<b>SAIFI (Benchmark = 0.98; Rolling 12-month Std. = 1.18)</b>	1.137
<b>CAIDI (Benchmark = 145; Rolling 12-month Std. = 174)</b>	136
<b>SAIDI (Benchmark = 142; Rolling 12-month Std. = 205)</b>	155
<b>MAIFI<sup>1</sup></b>	4.836
<b>Average Number of Customers Served<sup>2</sup></b>	1,385,755
<b>Number of Sustained Customer Interruptions (Trouble Cases)</b>	20,484
<b>Number of Customers Affected<sup>3</sup></b>	1,575,583
<b>Customer Minutes of Interruptions</b>	214,072,947
<b>Number of Customer Momentary Interruptions</b>	6,701,093

During the 3<sup>rd</sup> quarter, there were four (4) PUC-reportable storms ( $\geq 2,500$  customers interrupted for  $\geq 6$  hours) and seven (7) other storms that required the opening of one or more area emergency centers to manage restoration efforts. Current storm experience remains high compared to historical norms.

Specifically, during the 12-month reporting period, there were ten (10) PUC-reportable storms ( $\geq 2,500$  customers interrupted for  $\geq 6$  hours) other than major events.

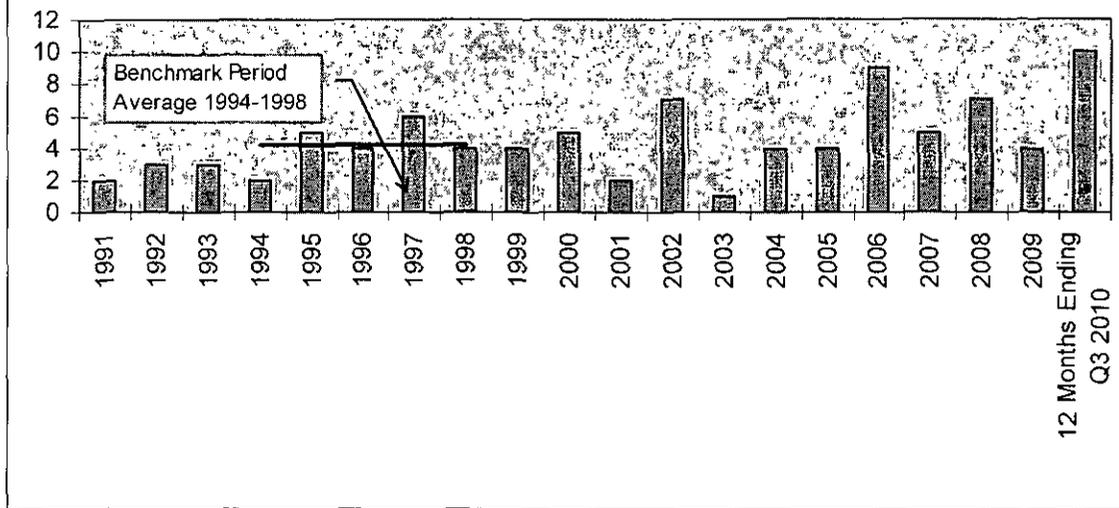
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<sup>1</sup> MAIFI data is obtained at the substation breaker and does not include momentary interruptions at lower level devices.

<sup>2</sup> PPL Electric calculates the annual indices using customers served at the end of the period. This is consistent with the method used to calculate PPL Electric's benchmarks.

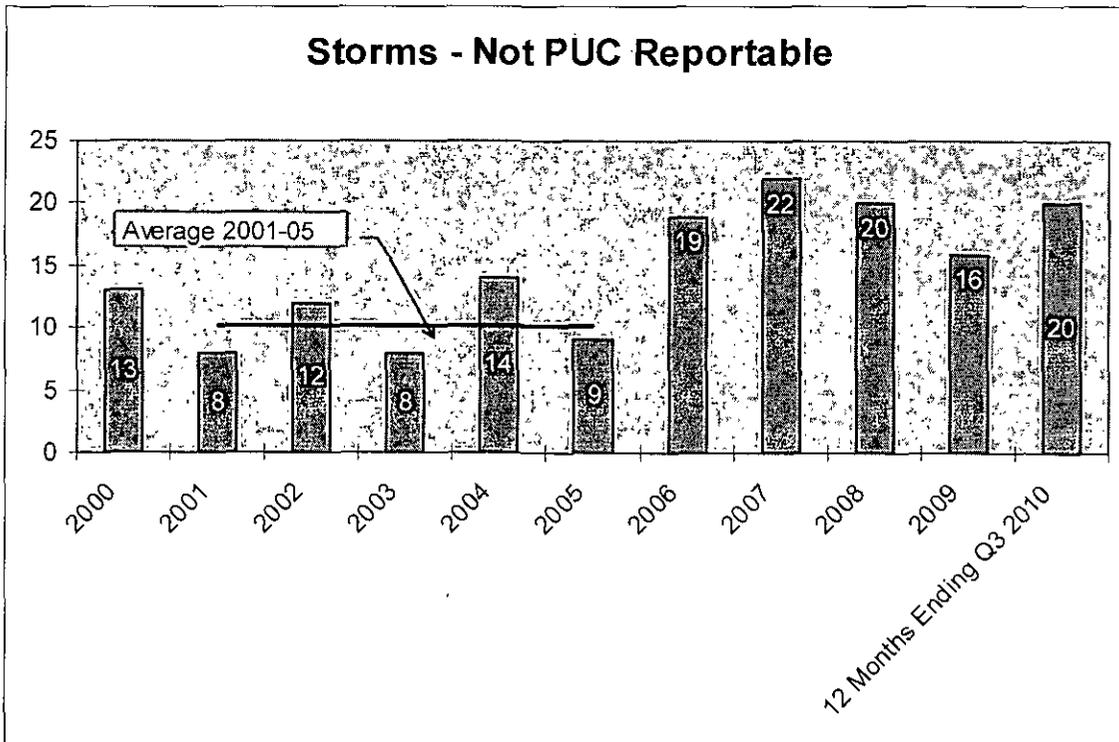
<sup>3</sup> The data reflects the number of customers interrupted for each interruption event summed for all events, also known as customer interruptions. If a customer is affected by three separate cases of trouble, that customer represents three customer interruptions, but only one customer interrupted.

### Storms - PUC Reportable Except Major Events



In addition, there were twenty (20) storms that were not reportable, but which did require the opening of one or more area emergency centers to manage restoration efforts. This is 96% higher than the average of 10.2 storms per year for the five years from 2001 through 2005.

### Storms - Not PUC Reportable



- 3) **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.**

The following table provides reliability index values for the worst performing 5% of the circuits in the system for the 12 months ended at the current quarter. An explanation of how PPL Electric defines its worst performing circuits is included in Appendix A.

WPC Rank	Feeder ID	SAIFI	CAIDI	SAIDI	MAIFI <sup>4</sup>	Customers	Cases of Trouble <sup>5</sup>	Customer Minutes Interrupted	CPI
1	22602	9.12	273	2,489	6.10	1515	73	3,770,971	1644
2	22002	6.76	277	1,874	0.00	1383	90	2,592,414	1410
3	10803	9.83	175	1,721	10.00	64	10	110,119	1387
4	43202	6.29	288	1,810	0.00	2102	61	3,804,644	1354
5	17002	4.57	271	1,238	7.01	1280	39	1,585,270	1133
6	44001	2.16	1023	2,207	0.00	134	7	295,726	1048
7	60904	5.94	130	771	7.76	1889	22	1,455,516	1031
8	17001	4.00	457	1,826	2.53	1502	76	2,741,917	954
9	27101	5.29	142	751	1.05	2696	90	2,025,046	932
10	10903	6.29	114	718	3.01	2018	54	1,449,208	913
11	51804	6.87	94	643	4.99	1021	11	656,401	887
12	47704	3.71	300	1,115	7.09	718	48	800,250	856
13	10901	4.47	224	1,004	8.00	681	33	683,663	851
14	14404	4.97	117	580	7.02	1541	30	894,137	816
15	12601	4.79	113	542	16.00	1960	53	1,062,554	813
16	17902	5.94	53	314	8.09	976	31	306,829	793
17	60604	4.66	86	401	4.01	333	13	133,511	743
18	60701	4.67	72	337	0.00	2091	34	705,546	723
19	26001	4.83	153	738	0.01	1338	78	987,420	718
20	15704	5.02	100	502	11.04	1273	59	639,116	718
21	60902	4.83	52	252	7.96	476	20	119,876	715
22	24401	4.51	144	650	21.00	2033	73	1,321,712	712
23	26002	4.14	155	644	0.00	1194	64	769,162	711
24	22901	5.26	23	122	4.08	2220	15	270,736	697
25	47401	3.33	186	621	5.03	1327	29	824,240	680
26	11001	4.05	140	566	6.53	867	47	490,532	677
27	63201	3.21	333	1,069	11.99	1636	29	1,748,144	675
28	46502	4.29	92	395	14.00	1029	17	406,215	671

<sup>4</sup> MAIFI data is obtained at the substation breaker and does not include momentary interruptions at lower level devices.

<sup>5</sup> Cases of trouble are the number of sustained customer service interruptions.

WPC Rank	Feeder ID	SAIFI	CAIDI	SAIDI	MAIFI <sup>4</sup>	Customers	Cases of Trouble <sup>5</sup>	Customer Minutes Interrupted	CPI
29	13905	4.41	136	601	4.03	1559	39	937,070	670
30	28302	4.49	117	523	11.03	2827	109	1,479,666	669
31	54701	3.84	133	510	7.86	1828	49	933,007	654
32	67201	4.31	106	455	26.00	794	26	361,331	654
33	26103	3.97	66	261	9.01	1932	16	503,845	649
34	13704	3.51	107	376	5.10	1573	60	591,996	643
35	57403	3.61	150	540	12.03	1468	53	792,719	633
36	18501	4.23	122	516	1.02	1709	52	881,523	608
37	18502	4.48	97	432	1.01	1811	95	782,641	605
38	47703	4.14	87	360	5.00	1360	53	489,270	598
39	25501	4.39	102	450	18.00	1630	70	733,011	592
40	60803	3.79	97	368	11.11	2004	38	736,851	590
41	58102	3.91	90	351	5.08	890	21	312,719	582
42	23102	3.27	131	428	1.00	1679	32	718,077	582
43	13603	1.62	857	1,391	3.04	535	12	744,139	571
44	64701	1.67	738	1,234	7.13	1555	6	1,918,295	566
45	28001	4.06	53	216	1.99	1785	97	386,135	562
46	44101	3.03	328	995	0.00	33	4	32,843	556
47	14401	3.12	60	187	8.97	1927	19	360,581	554
48	64802	2.95	202	598	0.00	1273	50	760,781	545
49	44902	2.98	183	544	11.91	2033	49	1,105,588	540
50	28301	3.59	122	436	7.41	2855	116	1,245,762	539
51	26401	4.76	112	531	1.00	2134	93	1,134,130	535
52	46701	3.36	213	716	2.99	708	20	507,060	535
53	28002	4.13	68	282	1.00	1648	84	465,556	534
54	55507	4.07	67	273	0.00	1662	19	453,244	523
55	46302	4.07	109	443	0.22	1778	69	787,570	523
56	26402	2.38	109	259	1.00	1073	25	278,350	522

PPL Electric's Circuit Performance Index ("CPI") is derived from the frequency and duration of service interruptions that occurred during the specified time period. Improving a circuit's CPI depends upon reducing either the service interruption frequency or the duration of interruptions, or both. When a new circuit appears among the 5% worst performing, the first step undertaken is to perform a "circuit outage data analysis." This consists of analyzing the actual service interruptions which occurred during the time span to determine if there are causal patterns or geographic patterns for which corrective actions are feasible that would improve the circuit's CPI.

**(4) Specific remedial efforts taken and planned for the worst performing 5% of the circuits identified in paragraph (3).**

<b>Rank</b>	<b>Action</b>	<b>Status</b>	<b>Due/Complete</b>	<b>Result</b>	
<b>1</b>	<b>Circuit ID: 22602 KIMBLES 26-02</b>			<b>Location: Pocono</b>	<b>CPI: 1644</b>
	4/15/2009: Investigate relocating poles 71347N49205 and 71358N49195. Both of these poles recieved vehicle hits in 2008 which caused breaker outages.	Completed	4/27/2009	Inconclusive. Monitor future performance. Relocation is possible, will monitor for future pole hits.	
	1/13/2009: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	2/28/2009	Three breaker outages in 2008 caused by two vehicle hits and one tree related outage significantly contributed to the CPI for this circuit. Customers experiencing more than 3 outages was the biggest contributor to the CPI.	
	1/13/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	3/31/2010	High CPI of this circuit is because of 2 large OCR outages caused by trees outside of the right-of-way and a transmission outage due to a failed switch (the switch was replaced).	
	10/11/2010: Circuit outage data analysis - WPC not on preceding qtr. list. Hot spot tree trimming has been completed.	Completed	9/30/2010		
	10/15/2010: Circuit outage data analysis. Problematic areas identified and line patrol scheduled.	Scheduled for	12/30/2010		
	10/15/2010: Improve sectionalizing capability.	In progress			
<b>2</b>	<b>Circuit ID: 22002 BOHEMIA 20-02</b>			<b>Location: Pocono</b>	<b>CPI: 1410</b>
	1/15/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	3/31/2010	A tree outage on 12/3/09, not related to trimming locked out A phase OCR affecting 89 customers. An outage on 12/29/09 caused by a failed PBAB switch on the transmission source (Blooming Grove-West Damascus line) to Bohemia resulted in 1389 Bohemia customers being interrupted for 1 to 4 hours.	
	4/26/2010: Install tie. SP 33608 build tie from Bohemia 20-2 to Twin Lakes 81-2	Scheduled for	11/30/2012		
<b>3</b>	<b>Circuit ID: 10803 CHERRY HILL 08-03</b>			<b>Location: Bethlehem</b>	<b>CPI: 1387</b>
	7/9/2008: Line inspection-equipment. Inspect line and make repairs.	Completed	12/31/2009	Crews replaced several cut outs and lightning arrestors.	
	7/13/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	5/31/2009	The SAIDI component was the greatest contributor to the CPI. The circuit experienced several long-duration tree outages. This circuit is on the edge of the PPL service territory which leads to a long response time due to the distance crews must travel to get to the outage.	
	7/13/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	8/31/2010	This circuit had several long duration outages. However, all events on this circuit in the past year have affected under 100 customers. Outages have been due to tree related issues and equipment failures.	

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>
<b>4</b>	<b>Circuit ID: 43202 MILLVILLE 32-02</b>			<b>Location: Sunbury</b>
				<b>CPI: 1354</b>
	10/8/2008: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	11/6/2008	The 32-02 circuit is categorized as a worst performing circuit due to its contribution to the System SAIDI and customers experiencing more than three outages. During the last 12 months, the highest profile outage occurred during a severe storm (6/10) when a tree from outside PPL right-of-way interrupted a recloser for 17 hours. Another outage caused by trees outside PPL right-of-way was a significant contribution to the PPL System SAIDI. The 2008 2nd Quarter performance of this circuit is contributing heavily toward this circuit's WPC status. It is not likely to drop off the WPC list until this quarter drops out of the calculation. Hot spot tree trimming was performed at one location identified by a line inspection.
	4/28/2010: Tree trimming-selected line segments only (hot spots). Hot spot tree trimming was performed at one location identified by a line inspection.	Completed	11/6/2008	Reduced outage risk.
	4/3/2007: Perform line maintenance identified by line inspection.	Completed	1/30/2009	Reduced outage risk.
	1/16/2009: Expanded Operational Review.	Completed	12/31/2009	No longer among 5% worst performing circuits.
	6/7/2010: Install 1 phase OCR(s).	Scheduled for	7/31/2011	
	6/7/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	6/7/2010	Inconclusive. Monitor future performance. This circuit was reviewed at Susquehanna Region's WPC meeting on 6/7/10. This circuit is categorized as a worst performer due to the number of customers experiencing more than 3 outages within the 12 month period. The causes of each of the high customer outages have been mitigated (off right of way tree, customer equipment, and substation CB maintenance). The line will be monitored for future issues.
	6/7/2010: Tree trimming-selected line segments only (hot spots).	Completed	6/10/2010	Reduced outage risk.
	6/7/2010: Perform line maintenance identified by line inspection.	Completed	6/7/2010	Reduced outage risk.
	6/7/2010: As a result of high customer outages 32-2 CB was maintained.	Completed	6/7/2010	Reduced outage duration.
	8/26/2010: Install tie. A project was placed into the budget to install a new line and terminal out of Millville substation which will lower customer count on Millville 32-2 and create a 12 kV tie between Millville 32-2 and the new line. This project will improve the performance of Millville 32-02 by relocating the line along the road. This project is scheduled to go in service in 5/2013.	Scheduled for	11/30/2011	

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>
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8/26/2010: Install tie. A project was placed into the budget to create a tie between Benton 34-1 and Millville 32-2, and a 12 kV tie between Millville 32-2 and Hughesville 70-1. This will enhance the reliability of all three circuits by providing additional operating flexibility through use of remotely operated interrupting and switching devices. The project expects to save approximately 0.3 system SAIDI minutes. This project is scheduled to go in service in 5/2013.

Scheduled for 5/31/2013

**5 Circuit ID: 17002 RIDGE ROAD 70-02**

**Location: Bethlehem**

**CPI: 1133**

1/13/2009: Circuit outage data analysis - WPC not on preceding qtr. list.

Completed 2/28/2009

Inconclusive. Monitor future performance. The circuit breaker was interrupted twice in the past year, once due to a vehicle pole hit and once due to a transmission outage.

10/9/2009: Circuit outage data analysis - WPC not on preceding qtr. list.

Completed 11/12/2009

Inconclusive. Monitor future performance. This circuit experienced three breaker outages within the past year due to vegetation. Two of these were due to transmission events.

5/25/2010: Circuit outage data analysis - WPC not on preceding qtr. list.

Completed 5/31/2010

The SAIDI component was the greatest contributor to the CPI. A tree-related outage during a March storm led to the circuit breaker being interrupted for 2,564 minutes. This resulted in 983,320 CMI. Outages on nearby lines left customers unable to be transferred.

5/25/2010: Install animal guard(s). Install animal guards on a development of 84 CEMI customers.

Completed 8/30/2010

Reduced outage risk.

8/20/2010: Relocate inaccessible line.

Scheduled for 12/31/2011

Reduced customer count affected by each outage.

8/20/2010: Line will be rearranged under New Substation project - Trumbauersville Substation

Scheduled for 5/31/2012

**6 Circuit ID: 44001 W. PENN (LOBO) SOURCE 40-01**

**Location: Susquehanna**

**CPI: 1048**

1/13/2010: Circuit outage data analysis - WPC not on preceding qtr. list.

Completed 3/4/2010

Inconclusive. Monitor future performance. This circuit is in a service territory borderline area whose source is another utility. This is categorized as a worst performer because of the significant storm damage the Non-PPL facilities sustained during an October 16, 2009 weather event. PPL customers remained out of service until the source utility's substation was restored. This line is completely radial and in a rural area.

6/7/2010: Improve sectionalizing capability. Review line and design WR for sectionalizing enhancements using solid blade disconnects with fault indicators.

Scheduled for 4/29/2011

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>	
<b>7</b>	<b>Circuit ID: 60904 DONEGAL 09-04</b>			<b>Location: Lancaster</b>	<b>CPI: 1031</b>
	7/23/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	5/31/2010	Inconclusive. Monitor future performance. SAIDI was 35% of the CPI score. The majority of the outages were due to trees, not trimming related. The circuit was last trimmed in 2003. The outage that contributed the greatest to the CMI occurred on 6/24 due to a severe wind storm, causing trees to fall into the primary electric lines. The CMI for that one outage was 490,871, or 63% of the total over the last 12 months.	
	7/23/2010: Line inspection-equipment. Line inspection to be performed on 2 & 3 phase line sections	Completed	5/19/2010	Multiple WR's initiated for follow-up work	
	7/23/2010: Perform line maintenance identified by line inspection. WR's 584318 (Pole), 584319 (Arms) and 584322 (Minor Maint) Initiated as a result of Line Inspection	Completed	10/13/2010	Reduced outage risk.	
	7/23/2010: Reconductor line. WR 587967 initiated to reconductor/rebuild existing double circuit section of Donegal 09-2 & 09-4.	Scheduled for	12/30/2011	Reduced outage risk.	
<b>8</b>	<b>Circuit ID: 17001 RIDGE ROAD 70-01</b>			<b>Location: Bethlehem</b>	<b>CPI: 954</b>
	1/4/2008: Improve sectionalizing capability.	Completed	9/30/2009	Reduced customer count affected by each outage.	
	1/13/2009: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	2/28/2009	This circuit experienced several long-duration tree outages in the winter. The circuit was trimmed during the following summer.	
	10/9/2009: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	11/12/2009	Inconclusive. Monitor future performance. The CEMI>3 component was the greatest contributor to the CPI. The primary cause of interruptions was trees from outside of trimming right of way.	
	5/24/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	5/31/2010	The SAIDI component was the greatest contributor to the CPI. A tree-related outage during a March storm led to the circuit breaker being interrupted for 2,099 minutes. This resulted in 2,162,010 CMI. Outages on nearby lines left customers unable to be transferred.	
	5/24/2010: Reconductor line. Reconductor a single phase section of line serving 74 CEMI customers with tree wire.	Scheduled for	12/31/2011		
	5/24/2010: Install tie. Build a tie between Ridge Road 70-1 and Richland 36-6 to create an auto transfer scheme to mitigate the effects of breaker operations.	Scheduled for	12/31/2011		
	5/25/2010: Install animal guard(s). Install animal guards on a portion of the line with significant animal outage history.	Completed	9/10/2010	Reduced outage risk.	
	8/20/2010: Create tie with Blooming Glen 06-1 line	Scheduled for	12/31/2011		

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>	
<b>9</b>	<b>Circuit ID: 27101 GREENFIELD 71-01</b>			<b>Location: Scranton</b>	<b>CPI: 932</b>
	4/9/2009: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	11/30/2009	Inconclusive. Monitor future performance. A breaker outage occurred in Q3 2009 due to an animal contact at the substation. There have been 3 large OCR outages, 2 of which were caused by trees outside the ROW and one of which was caused by a failed insulator.	
	1/14/2010: Relocate inaccessible line. Investigate relocating inaccessible 3 phase section of line.	Completed	3/31/2010	Could not justify project due to lack of outages on the section of inaccessible line.	
<b>10</b>	<b>Circuit ID: 10903 COOPERSBURG 09-03</b>			<b>Location: Bethlehem</b>	<b>CPI: 913</b>
	7/28/2010: Load balancing. Balance load to provide better transferability.	Completed	8/30/2010	Inconclusive. Monitor future performance.	
	7/28/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	8/30/2010	The CEMI>3 component was the greatest contributor to the CPI. Five breaker outages have occurred in the past 12 months, including two tree-related outages. A transmission interruption, animal contact, and equipment failure have also each contributed to a breaker outage.	
	7/28/2010: Circuit outage data analysis. Review for possible line protection addition to limit the number of customers affected by an interruption.	Completed	7/30/2010	Inconclusive. Monitor future performance.	
	8/20/2010: Increase tie capability: an additional tie with Lanark 23-1 is planned	Scheduled for	12/31/2011		
<b>11</b>	<b>Circuit ID: 51804 EBENEZER 18-04</b>			<b>Location: Harrisburg</b>	<b>CPI: 887</b>
	10/1/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	2/12/2010	Inconclusive. Monitor future performance. The major contributing outage occurred when the Rutherford 76-02 line was transferred to Ebenezer 18-04. There were numerous contributing factors to this extended outage that the field has since addressed. Ebenezer 18-04 is expected to drop from the WPC list when this outage falls off.	
	10/11/2010: Circuit outage data analysis.	Completed	10/11/2010	The outage history has been reviewed for the period ending with 2010 Q3. There have been eleven outages in the last four quarter period. Aside from a vehicle pole hit, there has not been an outage affecting more than 22 customers since January. Ebenezer 18-4 will likely drop off the WPC list next quarter when the Rutherford 76-2 outage of 10/19/2009 falls off.	

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>
<b>12</b>	<b>Circuit ID: 47704 BLOOMSBURG 77-04</b>			<b>Location: Sunbury</b>
				<b>CPI: 856</b>
	4/30/2008: Install 3 phase OCR(s). Replace existing OCR with single pole tripping recloser at grid 35204N31678. WR number is 420353.	Completed	8/31/2010	Reduced customer count affected by each outage.
	10/8/2008: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	11/6/2008	Reduced outage risk. The 77-04 circuit was reviewed at the Susquehanna Region's WPC meeting on 11/6/08. The outage data and the associated reliability metrics for the last 4 quarters were reviewed. The Bloomsburg #4 circuit is categorized as a worst performing circuit due to its contribution to the system SAIDI and the number of customers experiencing a long duration outage. This circuit was heavily impacted during the June 10 storm. This is expected to remain a WPC until the Q2 2008 data drops out of the CPI calculation.
	1/16/2009: Expanded Operational Review.	Completed	12/31/2009	Reduced customer count affected by each outage. EOR completed. Triple Single OCR installed on Millertown Tap.
	4/9/2009: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	5/26/2009	Inconclusive. Monitor future performance. The 77-04 circuit was reviewed at the Susquehanna Region's WPC meeting on 5/26/09. The outage data and the associated reliability metrics for the last 4 quarters were reviewed. The Bloomsburg #4 circuit is categorized as a worst performing circuit due to its contribution to the system SAIDI. This circuit was heavily impacted during the June 10 storm. This is expected to remain a WPC until the Q2 2008 data drops out of the CPI calculation.
	2/4/2008: Install tie. Extend 3-phase along Millville Rd up to Rt 42 and Tie 77-04 with 77-03 line	Scheduled for	8/14/2011	
	7/13/2009: Relocate inaccessible line. Relocate 3 phase line (WR 434431) along steep cliffside, subject to tree damage, to the roadside along Rte 42.	Completed	11/18/2009	Reduced outage risk.
	7/13/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	8/19/2010	Inconclusive. Monitor future performance. The Bloomsburg #4 circuit was discussed at Susquehanna Region's Q2 2010 WPC meeting on 8-19-10. This circuit is categorized as a WPC due to storm outages during a May 2010 weather event. This storm resulted in downed trees contacting power lines and causing significant damaged.
	8/26/2010: Install tie. A project was placed into the budget to create a tie between Bloomsburg 47704 and Bloomsburg 47703. This will enhance the reliability of both Bloomsburg circuits by providing additional operating flexibility through use of remotely operated interrupting and switching devices. This project is scheduled to go in service in 11/2014.	Scheduled for	11/30/2014	

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>
<b>13</b>	<b>Circuit ID: 10901 COOPERSBURG 09-01</b>			<b>Location: Bethlehem</b> <b>CPI: 851</b>
	10/8/2008: Tree trimming.	Completed	12/31/2008	Reduced outage duration.
	10/8/2008: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	11/30/2008	Reduced outage risk. This circuit has experienced three major outages: A breaker outage due to a dig in, an OCR outage due to equipment failure, and another OCR outage due to a tree outside of the right of way.
	7/13/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	8/30/2010	The greatest contributor to the CPI for this circuit is greater than 3 outages. This circuit has experienced three breaker outages in the past 12 months. One was due to a transmission outage. One was due to animal contact in the substation. One was due to an improper operation of equipment. All three problems were addressed.
	8/20/2010: Reconfigure line.	Scheduled for	5/31/2011	
<b>14</b>	<b>Circuit ID: 14404 SO SLATINGTON 44-04</b>			<b>Location: Lehigh</b> <b>CPI: 816</b>
	10/11/2010: Install animal guard(s).	Completed	7/11/2009	Reduced outage risk.
	10/11/2010: Load balancing.	Scheduled for	1/1/2011	Reduced outage risk.
	10/11/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	11/30/2010	
<b>15</b>	<b>Circuit ID: 12601 MACADA 26-01</b>			<b>Location: Bethlehem</b> <b>CPI: 813</b>
	7/13/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	8/30/2010	There have been three outages on this line over the past year. Two breaker outages were due to tree related outages; neither was due to tree trimming concerns. This circuit is due to be trimmed in 2011. One breaker outage was due to equipment failure inside the substation. This failure was fixed by February 2010.
<b>16</b>	<b>Circuit ID: 17902 BARTONSVILLE 79-02</b>			<b>Location: Pocono</b> <b>CPI: 793</b>
	10/11/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	11/30/2010	

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>
<b>17</b>	<b>Circuit ID: 60604 NORTH COLUMBIA 06-04</b>			<b>Location: Lancaster</b>
				<b>CPI: 743</b>
	5/19/2008: Perform line maintenance identified by line inspection. LMI Inspection performed on 1 phase and 3 phase line - 10.3 miles total	Completed	3/8/2010	Reduced outage risk.
	7/13/2010: Expanded Operational Review. The reliability analysis portion of the EOR was completed 3/10/10	EOR initiated	12/31/2010	
	7/13/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	8/26/2010	4 Q Summary: CAIDI: 98.08; SAIFI: 3.717 (26% contribution to overall CPI); SAIDI: 364.6 (23%); >3 Cases: 146 (47%); Last Trimmed: 2008. Top Causes of Interruptions: trees - not trimming related. Top Components of Interruptions: OH - Primary/Neutral.
	7/23/2010: Relocate inaccessible line. WR's 585677 & 585688 Initiated to relocate inaccessible line sections	Scheduled for	12/31/2012	
	10/13/2010: Line inspection-equipment. Line Inspection to be performed on 2 & 3 phase line sections. (5.3 miles)	Completed	3/8/2010	Reduced outage risk.
	10/13/2010: Thermographic inspection-OH line.	Completed	2/4/2010	
	10/13/2010: Perform line maintenance identified by line inspection.	Scheduled for	12/31/2010	Reduced outage risk.

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>
<b>18</b>	<b>Circuit ID: 60701 BRECKNOCK 07-01</b>			<b>Location: Lancaster East</b>
				<b>CPI: 723</b>
	1/1/2007: Expanded Operational Review. The Reliability Analysis portion of the EOR was completed 5/19/10	EOR initiated	12/31/2010	Reduced outage duration.
	See subsequent records for reliability work requests			
	8/9/2010: Install fuse(s). Install single phase tap fuse @ 47474s31082	Scheduled for	6/1/2011	
	8/9/2010: Improve sectionalizing capability. Install Fault Indicators on normally closed LBAS @ 48480s31950	Scheduled for	12/31/2010	
	8/9/2010: Load balancing. Switch 65 customers from Bph to Aph @ 49441S31836	Scheduled for	12/31/2010	
	Switch 33 customers from Cph to Bph @ 48370s32150			
	Switch 87 customers from Bph to Cph @ 47174s31525			
	9/11/2010: Install 1ph OCR near 48303s32397	Scheduled for	12/31/2011	
	9/11/2010: Install 1 phase OCR(s). Install 1ph OCR near 48303s32397	Scheduled for	12/31/2011	
	10/11/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	11/30/2010	
	3/23/2010: Line inspection-equipment. Line Inspection performed on 2 & 3 phase line sections (13.8 miles)	Completed	3/23/2010	
	8/26/2010: Perform line maintenance identified by line inspection. WR 572702 (Arms)	Completed	8/26/2010	Reduced outage risk.
	2/4/2010: Thermographic inspection-OH line.	Completed	2/4/2010	
<b>19</b>	<b>Circuit ID: 26001 WEST DAMASCUS 60-01</b>			<b>Location: Pocono</b>
				<b>CPI: 718</b>
	11/22/2005: Monitor future performance.	Completed	11/30/2008	Circuit has been off WPC for 6 quarters.
	1/13/2009: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	2/28/2009	Inconclusive. Monitor future performance. Many small long duration outages during storms in June and October 2008 significantly contributed to the CPI for this circuit. 500,000 customer minutes were lost during Q4 of 2008.
	10/9/2009: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	11/30/2009	This circuit experienced a circuit breaker outage during Q3 due to a vehicle hitting a pole. This circuit has had many long duration outages due to the remote location of the circuit.
	10/15/2010: Circuit outage data analysis.	Completed	9/30/2010	Beavers caused trees to bring down wires. Hazard trees have been removed.
	10/21/2010: Improve sectionalizing capability.	Scheduled for	4/15/2011	Work Request 607577 to extend 1 phase and relocate/install recloser.

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>	
<b>20</b>	<b>Circuit ID: 15704 TANNERSVILLE 57-04</b>			<b>Location: Pocono</b>	<b>CPI: 718</b>
	1/1/2008: Expanded Operational Review.	Completed	12/31/2008	Inconclusive. Monitor future performance.	
	Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	5/7/2010	Four large OCR outages significantly contributed to the CPI of this circuit. Two outages were caused by trees outside the ROW, one was a vehicle hit, and one was of unknown cause.	
	6/30/2010: Install tie.	Scheduled for	11/30/2011	SP51223 will create a tie for 524 currently radial customers. Additional remote operator controlled equipment will be installed to improve sectionalizing of the circuit.	
	10/11/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	11/30/2010		
<b>21</b>	<b>Circuit ID: 60902 DONEGAL 09-02</b>			<b>Location: Lancaster</b>	<b>CPI: 715</b>
	2/1/2008: Expanded Operational Review. Reliability Analysis Completed 1/24/08 Voltage Profile completed 11/12/08	Completed	12/31/2008	No reliability work requests needed	
	3/26/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	3/26/2010	Reduced outage duration. First time this circuit was ever on the WPC list. Evaluating the addition of Remote Operator Controlled Switched to automate the tie switch at 33149S29086. Investigated the circuit breaker outages to determine if the circuit breaker should be replaced. LMI will perform a patrol of the circuit especially looking at the double circuit construction. Outages due to poor double circuit configuration.	
	7/12/2010: Improve sectionalizing capability. A remotely controlled motor operator will be added to existing tie Load Break Air Switch on pole 33149s29086 under Work Request 583477.	Scheduled for	12/31/2011		
	3/23/2010: Line inspection-equipment. The substation circuit breaker issues were investigated on March 23rd by the Substation Maintenance group.	Completed	3/23/2010	Reduced outage risk. No problems were found, although the decision was made to replace the breaker in 2014 due to its age.	
	5/14/2010: Line inspection-equipment. The line will be patrolled and inspected.	Completed	5/14/2010	Reduced outage risk. Multiple WR's initiated to complete follow-up work identified.	
	Install 3 phase OCR(s).	Scheduled for	5/30/2011		
	7/23/2010: Improve sectionalizing capability. Replace the 09-2 CB	Scheduled for	12/31/2014		
	7/23/2010: Reconductor line. WR 587967 initiated to reconductor/rebuild existing double circuit section of Donegal 09-2 & 09-4.	Scheduled for	12/30/2011		
	7/23/2010: Perform line maintenance identified by line inspection. WR's 583074 (Pole), 583510 (Arms), 583511 (Minor Maint), 583922 (Pole), 583923 (Pole), 583925 (Pole) and 583927 (Pole) initiated to complete follow-up from completed line inspection.	Scheduled for	12/31/2010		

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>	
<b>22</b>	<b>Circuit ID: 24401 TINKER 44-01</b>			<b>Location: Pocono</b>	<b>CPI: 712</b>
	11/23/2005: Tree trimming. Reliability preservation work to remove a portion of line.	Completed	2/28/2009	Reduced outage risk.	
	1/2/2007: Install 3 phase OCR(s).	Completed	5/31/2009	Reduced customer count affected by each outage. Current sectionalizing sufficient	
	7/14/2009: Improve sectionalizing capability.	Completed	1/21/2009	Reduced outage duration. ROCS devices were installed at 62333N54790 and 62389N54790. Telemetric controls were added to OCR 61820N57144	
	1/13/2009: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	2/28/2009	Inconclusive. Monitor future performance. Two breaker outages and three large OCR outages significantly contributed to the CPI for this circuit. Over 800 customers experienced five outages in 2008. Almost 1 million customer minutes were lost in Q4 2008.	
	Monitor future performance.	Completed	2/28/2009	Circuit performance has improved substantially in Q1 and Q2 of 2009	
<b>23</b>	<b>Circuit ID: 26002 WEST DAMASCUS 60-02</b>			<b>Location: Pocono</b>	<b>CPI: 711</b>
	4/9/2009: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	5/31/2009	There was a long duration breaker outage in Q1 of 2009 due to vehicle hit.	
	8/11/2006: Monitor future performance.	Completed	7/15/2009	There was a large OCR outage due to trees from outside the ROW in Q2 2009 during a thunderstorm.	
	8/11/2006: Install sectionalizers. An intelligent switching project has been identified to reduce customer minutes lost.	Completed	12/31/2009	Reduced customer count affected by each outage.	
	8/14/2007: Tree trimming.	Completed	8/31/2009	Reduced outage risk.	
	10/11/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	11/30/2010		
<b>24</b>	<b>Circuit ID: 22901 HARWOOD 29-01</b>			<b>Location: Central</b>	<b>CPI: 697</b>
	Expanded Operational Review.	EOR planned	12/31/2010		
	7/13/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	11/30/2010		
<b>25</b>	<b>Circuit ID: 47401 PENNS 74-01</b>			<b>Location: Sunbury</b>	<b>CPI: 680</b>
	Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	5/31/2010	Inconclusive. Monitor future performance. This circuit was reviewed at Susquehanna Region's WPC meeting on 6/7/10. This circuit is categorized as a worst performer due to its SAIDI contribution and the number of customers experiencing more than 3 outages within the 12 month period. Two of the outages were due to off-right of way trees.	
	6/7/2010: Tree trimming. Complete maintenance trimming on entire circuit (59 miles), including hazard tree removals.	Scheduled for	11/30/2010		
	10/11/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	11/30/2010		

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>
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**26 Circuit ID: 11001 EAST GREENVILLE 10-01**

**Location: Bethlehem**

**CPI: 677**

Improve sectionalizing capability. Project being developed to resectionalize trouble spots, and add better fusing scheme to limit customer exposure. Inaccessible portion of the line will be re-fed from a new single phase section.

Scheduled for 2/24/2011

4/9/2009: Improve sectionalizing capability. Install new OCR, replace existing OCR with telemetric OCR and install motorized switch at East Greenville 10-1/Macungie 27-1 tie.

Completed 8/20/2010 Reduced outage risk.

4/9/2009: Reconductor line. Reconductor and relocate 20 spans to the road.

Scheduled for 11/30/2010

4/9/2009: Circuit outage data analysis - WPC not on preceding qtr. list.

Completed 5/31/2009 The SAIDI component was the greatest contributor to the CPI. A load imbalance during switching caused a long-duration outage in February when several loops burned open. A second long-duration outage occurred in July when trees interrupted 378 customers for 1,386 minutes.

7/13/2010: Circuit outage data analysis - WPC not on preceding qtr. list.

Completed 8/30/2010 Customers experiencing greater than three outages was the greatest contributor to the CPI. This was due to several tree related outages (due to non-tree trimming related outages) and one instance of equipment failure on the line. Tree trimming is planned for the line in 2011.

8/20/2010: Line Inspection and Maintenance

Scheduled for 12/31/2011

**27 Circuit ID: 63201 MORGANTOWN 32-01**

**Location: Lancaster East**

**CPI: 675**

5/19/2008: Perform line maintenance identified by line inspection. LMI inspection performed on 2 phase and 3 phase line - 12.5 miles total

Completed 12/31/2008 Reduced outage risk.

7/13/2010: Circuit outage data analysis - WPC not on preceding qtr. list.

Completed 8/26/2010 4 Q Summary: CAIDI: 319; SAIFI: 3.437 (the contribution to the overall CPI is 14%); SAIDI: 318.21 (40%); >3 Cases: 715 (27%); Total CPI: 799. The circuit was last trimmed in 2004. The Top Causes of outages were trees, not trimming related and the Top Component was OH-transformer.

7/23/2010: Reconductor line. WR 582710 Initiated to Reconductor Section of 32-1 Line (#2 Cu)

Scheduled for 12/30/2011 Reduced outage risk.

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>	
<b>28 Circuit ID: 46502 LOCK HAVEN 65-02</b>				<b>Location: Susquehanna</b>	<b>CPI: 671</b>
	1/1/2008: Expanded Operational Review.	Completed	12/31/2008	No reliability issues identified. Phase balance WR written	
	7/13/2010: Load balancing. Change 1ph tap as result of EOR	Completed	5/28/2009	Reduced outage risk.	
	7/13/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	8/19/2010	Inconclusive. Monitor future performance. The performance of this circuit was discussed at Susquehanna Region's Q2 2010 WPC meeting on 8-19-10. This circuit is categorized as a worst performer due to customers experiencing more than 3 outages. The multiple outages were caused by excess sag in the lines that were galloping together during breezy days. In addition, two vehicle contacts caused 2 additional substation breaker outages. This circuit will likely remain on the list for an additional quarter.	
	2/10/2010: Perform line maintenance identified by line inspection.	Completed	4/21/2010	Reduced outage risk. Reframed pole line and resagged conductor to eliminate phase to phase clearance issue that was causing multiple outages.	
	1/31/2010: Reconductor line. UG Cable replacement after test.	Completed	2/19/2010	Reduced outage risk. Replaced UG 3 phase line section from 08668N34903 to 08568N34926 with new cable.	
<b>29 Circuit ID: 13905 SEIDERSVILLE 39-05</b>				<b>Location: Bethlehem</b>	<b>CPI: 670</b>
	7/23/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	8/30/2010	The greatest contribution to the CPI has been due to customers experiencing greater than 3 outages. Many of the larger 3-phase outages on the line have been due to equipment failures. There is inspection and maintenance planned for this line in 2011.	
	8/20/2010: Line Inspection and Maintenance	Scheduled for	12/31/2011		
	8/20/2010: Line Reconfigured and approximately 500 customers transferred from this circuit	Completed	11/30/2010	Reduced customer count affected by each outage.	
<b>30 Circuit ID: 28302 NEWFOUNDLAND 83-02</b>				<b>Location: Pocono</b>	<b>CPI: 669</b>
	1/10/2007: Reconductor line. Over 4 miles of line will be rebuilt and reconducted along the road.	Completed	12/30/2008	Reduced outage risk. Rebuilding and relocating the line will reduce probability of outages as well as duration of outages seen by customers.	
	Monitor future performance.	Completed	12/31/2009	Inconclusive. Monitor future performance. Many long duration outages during October 2008 snowstorm significantly contributed to the CPI of this circuit. Over 6.6 million customer minutes were lost during the storms in Q4 2008. There was a large OCR outage in August 09 due to a vehicle hit. Circuit performance has improved in 2009.	
	10/11/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	11/30/2010		
	10/21/2010: Tree trimming.	Completed	10/21/2010	Reduced outage risk. Circuit recently trimmed	

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>	
<b>31</b>	<b>Circuit ID: 54701 NEW BLOOMFIELD 47-01</b>			<b>Location: West Shore</b>	<b>CPI: 654</b>
	5/31/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	5/31/2010	This is a new 12 kV distribution line from a new substation. The major contributing outage occurred when the substation recloser failed shortly after being put in service. If it weren't for the premature failure of new equipment, the circuit would not be on the WPC list. Future performance will be monitored to determine whether additional action items are warranted.	
	10/1/2010: Install 3 phase OCR(s). Replace existing 3 phase hydraulic recloser with a new electronic recloser near Little Buffalo State Park for better coordination.	Scheduled for	3/31/2011		
	10/1/2010: Improve sectionalizing capability. Automate existing tie to the Newport 50-1 line with ROCS devices.	Scheduled for	7/30/2011		
	10/1/2010: Install 3 phase OCR(s). Replace existing 3 phase hydraulic recloser with a new electronic recloser near Enchanted Springs Drive for better coordination.	Completed	10/1/2010	Reduced outage risk.	
<b>32</b>	<b>Circuit ID: 67201 TERRE HILL 72-01</b>			<b>Location: Lancaster East</b>	<b>CPI: 654</b>
	5/6/2010: Expanded Operational Review. Reliability Analysis Completed 5/5/10	EOR initiated	12/31/2010	Reduced outage duration.	
	See subsequent records for Reliability Work Requests				
	5/6/2010: Install fuse(s). Install tap fuse @ 45929s30694	Completed	7/31/2010	Reduced customer count affected by each outage.	
	8/23/2010: Install 1 phase OCR(s). Inst 1ph OCR @ 46446s30423	Scheduled for	12/31/2010	Reduced customer count affected by each outage.	
	8/23/2010: Improve sectionalizing capability. Install ROCS on NO LBAS 44796s30605 Change control to Form 6 w/ Telemetrics @ 46410s30313	Scheduled for	12/31/2010	Reduced outage duration.	
	10/11/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	11/30/2010		
	9/7/2010: Line inspection-equipment. Perform line inspection on 2 & 3 phase line sections (17 miles)	Completed	9/7/2010	Identified deteriorated crossarms at 8 locations, 2 lightning arrestors, and created work requests for the replacement.	
	10/13/2010: Perform line maintenance identified by line inspection. WR 603446 (Arms) and 603447 (Minor Maint.)	Scheduled for	12/31/2010		
	2/10/2010: Thermographic inspection-OH line.	Completed	2/4/2010	No significant problems identified.	
<b>33</b>	<b>Circuit ID: 26103 THROOP 61-03</b>			<b>Location: Scranton</b>	<b>CPI: 649</b>
	10/11/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	11/30/2010		

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>	
<b>34</b>	<b>Circuit ID: 13704 SCHNECKSVILLE 37-04</b>			<b>Location: Lehigh</b>	<b>CPI: 643</b>
	5/14/2008: Load balancing.	Completed	9/30/2009	Reduced outage risk.	
	1/13/2009: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	4/16/2009	Two breaker outages in the past year. Additional OCR outages caused many of the customers to see more than three outages. Equipment failures are the leading cause of outages on this line.	
	10/11/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	11/30/2010		
<b>35</b>	<b>Circuit ID: 57403 SPANGLER 74-03</b>			<b>Location: West Shore</b>	<b>CPI: 633</b>
	5/31/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	5/31/2010	Inconclusive. Monitor future performance. The greatest contributing cause to outages has been trees from outside the trimming right of way during small storms.	
	10/1/2010: Install tie. Install new tie between the Spangler 74-3 and Mt. Allen 73-4 lines. This will provide better sectionalizing and transfer capabilities.	Scheduled for	12/31/2012		
	10/1/2010: Reconductor line. Reconductor part of the three phase line along Fishing Creek Road. This will improve the transfer capabilities of a tie between the Spangler 74-1 and 74-3 lines.	Scheduled for	4/1/2011		
	10/1/2010: Install automation devices. Add several automation devices to tie points along the Spangler 74-3 circuit. This will improve restoration times.	Scheduled for	4/1/2011		
<b>36</b>	<b>Circuit ID: 18501 CANADENSIS 85-01</b>			<b>Location: Pocono</b>	<b>CPI: 608</b>
	1/1/2008: Expanded Operational Review.	Completed	12/31/2008		
	10/9/2009: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	11/30/2009	Inconclusive. Monitor future performance. This circuit has had 3 large OCR outages in the last 12 months resulting in 1,000 customers experiencing 3 or more outages. Two of the outages were caused by vehicle hits and one was caused by a tree from outside the ROW.	
	5/7/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	5/7/2010	Inconclusive. Monitor future performance. One extender circuit breaker outage and one large OCR outage in Q1 2010 greatly contributed to the CPI of this circuit. Both outages were caused by trees from outside the ROW.	
	10/18/2010: Improve sectionalizing capability.	Completed	8/31/2010	The addition of Remote Operator Controlled Switches and Telemetric VCRs will be investigated.	
	10/18/2010: Improve sectionalizing capability.	Scheduled for	6/15/2011	Existing air breaks and OCRs will be upgraded to automated devices.	

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>
<b>37</b>	<b>Circuit ID: 18502 CANADENSIS 85-02</b>			<b>Location: Pocono</b>
				<b>CPI: 605</b>
	1/1/2008: Expanded Operational Review. Monitor future performance.	Completed Ongoing	12/31/2008	Inconclusive. Monitor future performance.
	7/10/2009: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	8/31/2009	Inconclusive. Monitor future performance. Several small long duration outages during the October 2008 snowstorm and a long duration breaker outage during a windstorm in February significantly contributed to the CPI for this circuit.
	2/6/2009: Improve sectionalizing capability.	Completed	2/6/2009	Reduced outage duration. OCRs 68292N38999 and 68774N38190 were upgraded with telemetrics.
	10/11/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	11/30/2010	
<b>38</b>	<b>Circuit ID: 47703 BLOOMSBURG 77-03</b>			<b>Location: Sunbury</b>
				<b>CPI: 598</b>
	1/16/2009: Expanded Operational Review.	EOR planned	12/31/2009	Reduced customer count affected by each outage. EOR completed. A new load break air switch was installed to provide for additional sectionalizing.
	8/26/2010: Install tie. A project was placed into the budget to create a tie between Bloomsburg 47703 and Bloomsburg 47704. This will enhance the reliability of both Bloomsburg circuits by providing additional operating flexibility through use of remotely operated interrupting and switching devices. This project is scheduled to go in service in 11/2014.	Scheduled for	11/30/2014	
	10/11/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	11/30/2010	

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>
<b>39</b>	<b>Circuit ID: 25501 MADISONVILLE 55-01</b>			<b>Location: Pocono</b>
				<b>CPI: 592</b>
	1/1/2008: Expanded Operational Review.	Completed	5/29/2009	Two single phase sections will be checked for overloads.
	1/19/2009: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	2/28/2009	Many long duration outages during storms in June, October, and December of 2008 significantly contributed to the CPI for this circuit. Two large customer count outages occurred in Q2 2008. Over 2.8 million customer minutes were lost during the storms in Q4 2008.
	7/13/2009: Circuit outage data analysis.	Completed	7/13/2009	There was one circuit breaker outage in Q1 2009. Circuit performance has improved in Q1 and Q2 of 2009
	1/14/2010: Install tie.	Completed	12/1/2009	Reduced customer count affected by each outage. New Jefferson substation went into service early December 2009 reducing the amount of customers and line length of 2-55-01 (Madisonville Sub)
	10/22/2010: Improve sectionalizing capability. Investigate the possibility of adding sectionalizing devices to the circuits ie. ROCS and telemetric OCR's to reduce duration and number of customers effected by an outage.	Scheduled for	11/29/2010	
	10/22/2010: Circuit outage data analysis - WPC not on preceding qtr. list. Adding switches to allow for remote operation and control in order to hasten restoration of customers.	Scheduled for	3/25/2011	
	10/21/2010: Reconductor line.	Scheduled for	5/27/2011	Reduced outage risk. Replace failing cable in Jefferson Heights URD
	10/21/2010: Reconductor line.	Scheduled for	5/27/2011	Reduced outage risk. Replace failing cable in Jefferson Heights URD
<b>40</b>	<b>Circuit ID: 60803 BUCK 08-03</b>			<b>Location: Lancaster East</b>
				<b>CPI: 590</b>
	1/2/2009: Expanded Operational Review. Voltage Profile Completed 8/18/09 Reliability Analysis Completed 8/18/09	Completed	12/31/2009	Completed EOR and created work requests to install 2 new capacitor banks.
	Reliability work requests under field review			
	1/5/2009: Line inspection-equipment. Complete Line Inspection on multiphase line sections - 15.7 miles total	Completed	1/30/2009	Identified maintenance work at 40 locations.
	1/15/2010: Perform line maintenance identified by line inspection. Initiated 18 work requests for deteriorated poles/arms/hardware at 40 locations.	Completed	2/3/2010	Reduced outage risk.
	1/18/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	2/28/2010	Circuit on list primarily due to customer's service being interrupted in storms. Continue to monitor and complete line maintenance previously identified.
	10/11/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	11/30/2010	

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>
<b>41</b>	<b>Circuit ID: 58102 NEW KINGSTOWN 81-02</b>			<b>Location: West Shore</b>
				<b>CPI: 582</b>
	3/17/2009: Expanded Operational Review. Reliability Review Completed 8/10/09. Voltage Profile Completed 7/08/09. Field Work Request Review in Progress.	Completed	12/31/2009	Inconclusive. Monitor future performance.
	11/11/2009: Install fuse(s). Install 4 tap fuses	Completed	9/30/2010	Reduced customer count affected by each outage.
	11/11/2009: Install animal guard(s). Install 5 transformer animal guards	Completed	9/30/2010	Reduced outage risk.
	10/11/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	11/30/2010	
<b>42</b>	<b>Circuit ID: 23102 MOSCOW 31-02</b>			<b>Location: Scranton</b>
				<b>CPI: 582</b>
	1/19/2009: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	2/28/2009	Reduced outage risk. A long duration breaker and OCR outage during the October 2008 snowstorm significantly contributed to the CPI for this circuit. Over 3 million customer minutes were lost during October 2008 snowstorm. Two large OCR outages in previous quarters also contributed to the CPI for this circuit.
	4/16/2009: Investigate additional sectionalizing on the circuit.	Completed	4/30/2009	No additional locations for sectionalizing were found.
	7/13/2009: Monitor future performance.	Completed	8/31/2010	This circuit experienced no major outages in Q1 and Q2 2009.
	7/13/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	11/30/2010	
<b>43</b>	<b>Circuit ID: 13603 RICHLAND 36-03</b>			<b>Location: Bethlehem</b>
				<b>CPI: 571</b>
	7/28/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	5/31/2010	The SAIDI component was the greatest contributor to the CPI. Two long-duration tree outages during a March storm led to 454 customers being interrupted for over 850 minutes. Another tree-related outage during a May storm led to 298 customers being interrupted for 1,166 minutes. All three vegetation interruptions were caused by trees from outside our trimming right of way.
<b>44</b>	<b>Circuit ID: 64701 LITITZ 47-01</b>			<b>Location: Lancaster East</b>
				<b>CPI: 566</b>
	12/15/2008: Line inspection-equipment. LMI Inspection performed on 2 phase and 3 phase line - 6.4 miles total	Completed	12/31/2008	WR's were initiated for needed repairs.
	10/11/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	11/30/2010	

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>
<b>45</b>	<b>Circuit ID: 28001 TAFTON 80-01</b>			<b>Location: Pocono</b>
				<b>CPI: 562</b>
	1/13/2009: Circuit outage data analysis.	Completed	2/28/2009	This circuit experienced a long duration breaker outage and many smaller long duration outages during the October 2008 snowstorm which significantly contributed to the CPI for this circuit. Over 1.9 million customer minutes were lost during this storm.
	1/30/2009: Monitor future performance.	Completed	2/28/2009	Inconclusive. Monitor future performance. Circuit performance improved in Q1 2009. In Q2 2009 there have been several small long duration outages due to trees from outside the ROW contacting the line during thunderstorms. Circuit performance improved in Q3 2009.
	10/11/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	11/30/2010	
<b>46</b>	<b>Circuit ID: 44101 PENN ELEC 41-01</b>			<b>Location: Sunbury</b>
				<b>CPI: 556</b>
	6/1/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	6/7/2010	Inconclusive. Monitor future performance. This circuit was reviewed at Susquehanna Region's WPC meeting on 6/7/10. This line is fed by a source from Penelec, serving customers in a rural area. Over the last 12 months there was a total of five outages, three of which affected all 33 customers fed from this line. This line will be monitored for future performance as it has typically been affected during bad weather.
<b>47</b>	<b>Circuit ID: 14401 SO SLATINGTON 44-01</b>			<b>Location: Lehigh</b>
				<b>CPI: 554</b>
	10/11/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	11/30/2010	

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>	
<b>48</b>	<b>Circuit ID: 64802 MOUNT NEBO 48-02</b>			<b>Location: Lancaster East</b>	<b>CPI: 545</b>
	4/28/2009: Expanded Operational Review. Voltage Profile Completed 4/21/09 Reliability Analysis Completed 4/21/09	Completed	12/31/2009		
	See subsequent records for reliability work requests				
	4/28/2009: Monitor future performance. Install 150 kVA Regulator n/o 39518s20247 (Node 13),	Completed	3/31/2010	Inconclusive. Monitor future performance.	
	7/10/2009: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	8/14/2009	Reduced customer count affected by each outage. Discussions around constructing tie to West Willow and constructing substation in Marticville to reduce outage duration and customers affected.	
	10/7/2009: Install 3 phase OCR(s). Replace Hydraulic OCR with Telemetric Electronic OCR 40077s20754	Completed	10/29/2009	Reduced outage duration.	
	7/15/2009: Line inspection-equipment. Complete Line Inspection on multiphase line sections - 6.6 miles total	Completed	8/10/2009		
	12/15/2009: Perform line maintenance identified by line inspection. WR 538735 - Replace Deteriorated cross arm	Completed	12/31/2009	Reduced outage risk.	
	10/13/2010: Reconductor line. Reconductor 1st 12 spans from Substation to 477 Al XLP (WR 447334)	Scheduled for	12/31/2010	Reduced outage risk.	
	10/13/2010: Install tie. Construct Tie to West Willow 75-3 via River Rd	Scheduled for	12/31/2012	Reduced outage duration.	
	10/13/2010: Install tie. Construct Tie to West Willow 75-3 via Marticville Rd	Scheduled for	12/31/2014	Reduced outage duration.	
<b>49</b>	<b>Circuit ID: 44902 SCOTT 49-02</b>			<b>Location: Sunbury</b>	<b>CPI: 540</b>
	3/26/2008: Test underground cable. Proactively cable cure Stoneybrook Mobile Home Park - attempt 46 sections.	Completed	11/19/2008	Reduced outage risk.	
	5/1/2008: Install 1 phase OCR(s).	Scheduled for	5/1/2010	Reduced outage risk.	
	5/15/2008: Install 1 phase OCR(s).	Scheduled for	3/31/2010	Reduced outage risk.	
	11/18/2008: Test underground cable. Replace 16 cables identified with neutral deterioration from cable cure program.	Scheduled for	12/31/2009	Inconclusive. Monitor future performance.	
	12/16/2008: Line inspection-equipment. Inspect 2 phase and 1 phase line from OCRs 36740N33470 to end (6.7 miles).	Completed	3/23/2009	Reduced outage risk. Line inspection completed. No major items found.	
	1/13/2009: Improve sectionalizing capability. Install automation scheme at six locations along circuit. Project includes two normally closed air breaks, two normally open air break ties, and two 3-phase OCR's.	Scheduled for	11/30/2010		
	10/11/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	11/30/2010		

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>	
<b>50</b>	<b>Circuit ID: 28301 NEWFOUNDLAND 83-01</b>			<b>Location: Pocono</b>	<b>CPI: 539</b>
	4/1/2006: Load balancing. At 67127N43019 change tap going South along Hemlock Grove Road from C to A phase (this will transfer two downstream fuses at 67150N42991 from C to A phase) and install fuse at pole 67038N44402 and transfer downstream single phase line from B to A phase.	Completed	12/31/2008	Reduced customer count affected by each outage.	
	7/10/2009: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	8/31/2009	Inconclusive. Monitor future performance. This circuit experienced many long duration outages during the October 2008 snowstorm. Over 2 million customer minutes were lost during this event. Storms during Q4 of 2008 greatly contributed to the CPI for this circuit. Circuit performance in 2009 has greatly improved with no major outages occurring.	
<b>51</b>	<b>Circuit ID: 26401 INDIAN ORCHARD 64-01</b>			<b>Location: Pocono</b>	<b>CPI: 535</b>
	8/11/2006: An intelligent switching project has been identified to reduce customer minutes lost.	Completed	12/31/2009	Reduced customer count affected by each outage.	
	10/11/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	11/30/2010		
<b>52</b>	<b>Circuit ID: 46701 RENOVO 67-01</b>			<b>Location: Susquehanna</b>	<b>CPI: 535</b>
	12/18/2008: Expanded Operational Review.	Completed	12/31/2009	Reduced outage risk. Identified locations for additional fusing and 1 animal guard.	
	12/18/2008: Line inspection-equipment.	Completed	1/30/2009	No maintenance items identified.	
	10/9/2009: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	12/1/2009	Inconclusive. Monitor future performance. The Renovo #1 circuit was discussed at Susquehanna Region's Quarterly WPC meeting on 12/1/09. This circuit is a WPC due to outages longer than 4 hrs in duration. This circuit was affected by a summer wind storm on August 9 resulting in all customers experiencing an outage for approximately 5 hours. The circuit was inspected in October and November to identify improvement projects. Several items identified include additional fusing, repair of pole top found burned by equipment damage, and adding redundancy to the Susquehanna River crossing to S. Renovo Borough. These items are documented individually in this database.	
	1/6/2010: Install animal guard(s).	Completed	1/20/2010	Reduced outage risk.	
	1/6/2010: Install fuse(s).	Completed	1/20/2010	Reduced customer count affected by each outage.	
	7/6/2010: Install fuse(s).	Completed	1/7/2010	Reduced customer count affected by each outage.	
	1/6/2010: Thermographic inspection-OH line.	Completed	3/31/2010	6.6 miles of three-phase and 0.2 miles of two-phase inspected. No repairs identified.	

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>
<b>53</b>	<b>Circuit ID: 28002 TAFTON 80-02</b>			<b>Location: Pocono</b> <b>CPI: 534</b>
	8/1/2008: Install 1 phase OCR(s).	Scheduled for	8/30/2008	Reduced outage duration. Install new single phase OCR on long single phase tap in place of fuse at 70836N46154
	10/11/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	11/30/2010	
<b>54</b>	<b>Circuit ID: 55507 HERSHEY 55-07</b>			<b>Location: Harrisburg</b> <b>CPI: 523</b>
	Replace hot secondary connection	Canceled	12/31/2008	Inconclusive. Monitor future performance.
	7/13/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	8/31/2010	The customers experiencing >3 outages component was the greatest contributor to the CPI. The circuit breaker has been interrupted three times in the past year. An animal interruption last October resulted in 150,906 CMI. Of a lightning arrester in June resulted in 50,780 CMI. An interruption of unknown cause interrupted the breaker resulting in 40,415. The circuit breaker currently has one shot reclosing at the substation.
	9/27/2010: Install 3 phase OCR(s). Install new 3 phase OCR outside of substation. Field to identify location.	Scheduled for	12/31/2011	
<b>55</b>	<b>Circuit ID: 46302 ROHRSBURG 63-02</b>			<b>Location: Sunbury</b> <b>CPI: 523</b>
	3/13/2008: Install 1 phase OCR(s). Replace fuse with 1 phase OCR at 37430N35717. Close NO at 37408N35600. Install slot fusing and feed this tap from north to south. Install new NO near 37420N34855.	Scheduled for	6/1/2011	Reduced customer count affected by each outage.
	3/13/2008: Relocate inaccessible line. Relocate inaccessible taps from fuse 37423N35271 (Savage Hill Rd).	Scheduled for	3/30/2011	
	1/18/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	3/4/2010	Reduced outage risk. The Rohrsburg 63-02 circuit was discussed at Susquehanna Region's WPC meeting on March 4, 2010. This line is categorized as WPC because of the number of customers experiencing more than 3 outages. This line has experienced two breaker outages in the last year, plus several large OCR outages due to vehicles and off-right-of-way trees. Several improvement initiatives are underway, documented elsewhere in this database.
	10/11/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	11/30/2010	
<b>56</b>	<b>Circuit ID: 26402 INDIAN ORCHARD 64-02</b>			<b>Location: Pocono</b> <b>CPI: 522</b>
	10/22/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	11/30/2010	

- 5) *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.*

The following table shows a breakdown of service interruption causes for the 12 months ended at the current quarter. The top three causes (Trees–Not Trimming Related, Equipment Failures, and Animals), which are based on the percent of cases of trouble, are highlighted in the table. Service interruption definitions are provided in Appendix B. PPL Electric’s maintenance programs focus on corrective actions to address controllable service interruptions (e.g., trees and equipment failure).

Cause Description	Trouble Cases <sup>6</sup>	Percent of Trouble Cases	Customer Interruptions <sup>7</sup>	Percent of Customer Interruptions	Customer Minutes	Percent of Customer Minutes
Animals	4,743	23.15%	92,451	5.87%	9,653,888	4.51%
Contact/Dig-In	156	0.76%	18,056	1.15%	1,004,396	0.47%
Directed by Non-PPL Authority	137	0.67%	10,583	0.67%	760,117	0.36%
Equipment Failures	5,552	27.10%	512,563	32.53%	58,609,213	27.38%
Improper Design	0	0.00%	0	0.00%	0	0.00%
Improper Installation	5	0.02%	5,433	0.34%	554,744	0.26%
Improper Operation	31	0.15%	46,064	2.92%	1,429,705	0.67%
Nothing Found	1,733	8.46%	108,554	6.89%	8,517,352	3.98%
Other-Controllable	120	0.59%	10,002	0.63%	705,974	0.33%
Other-Non Control	486	2.37%	48,572	3.08%	4,502,781	2.10%
Other-Public	99	0.48%	6,967	0.44%	517,392	0.24%
Trees-Not Trimming Related	5,782	28.23%	533,115	33.77%	104,623,074	48.87%
Trees-Trimming Related	907	4.43%	57,849	3.67%	12,355,969	5.77%
Vehicles	732	3.57%	126,348	8.02%	10,835,030	5.06%
Total	20,484	100.00%	1,575,584	100.00%	214,073,243	100.00%

<sup>6</sup> Trouble cases are the number of sustained customer service interruptions (i.e., service outages).

<sup>7</sup> The data reflects the number of customers interrupted for each interruption event summed for all events, also known as customer interruptions. If a customer is affected by three separate cases of trouble, that customer represents three customer interruptions, but only one customer interrupted.

Analysis of causes contributing to the majority of service interruptions:

**Weather Conditions:** PPL Electric records weather conditions, such as wind or lightning, as contributing factors to service interruptions, but does not code them as direct interruption causes. Therefore, some fluctuations in cause categories, especially tree- and equipment-related causes, are attributable to weather variations. PPL Electric has experienced an elevated level of both reportable and non-reportable storms during this reporting period.

**Trees – Trimming Related:** On January 1, 2010, PPL Electric initiated a prescriptive tree trimming program that moved maintenance trimming cycles to five years for all circuits in PPL Electric's northern territory and four years for all circuits in PPL Electric's southern territory. These cycles are inclusive of both urban and rural circuits and will shorten the overall average trimming cycle for the system. Several more years will be required for the program to reach its full effectiveness on all circuits

**Trees – Not Trimming Related:** Although their effect on reliability is significant, tree outages not related to trimming generally are caused by trees falling from outside of PPL Electric's rights-of-way, and generally are not controllable.

**Animals:** Animals accounted for about 23% of PPL Electric's cases of trouble. Although this represents a significant number of cases, the effect on SAIFI and CAIDI is small because nearly 85% of the number of cases of trouble was associated with individual distribution transformers. However, when animal contacts affect substation equipment, the effect may be widespread and potentially can interrupt thousands of customers on multiple circuits. In addition to guarding new distribution transformers and substations, in 2009, PPL Electric initiated distribution and substation animal guarding programs to systematically focus on protecting existing facilities most at risk of incurring animal-caused interruptions.

**Vehicles:** Although vehicles cause a small percentage of the number of cases of trouble, they accounted for a large percentage of customer interruptions and customer minutes, because main distribution lines generally are located along major thoroughfares with higher traffic densities. In addition, vehicle-related cases often result in extended repair times to replace broken poles. Service interruptions due to vehicles are on the rise as a result of an increasing number of drivers and vehicles on the road. PPL Electric has a program to identify and relocate poles that are subject to multiple vehicle hits.

**Equipment Failure:** Equipment failure is one of the largest single contributors to the number of cases of trouble, customer interruptions and customer minutes. However, approximately 45% of the cases of trouble, 54% of the customer interruptions and 62% of the customer minutes attributed to equipment failure were weather-related and, as such, are not considered to be indicators of equipment condition or performance. In 2009, to help reduce the risk of incurring interruptions due to equipment failures, PPL Electric initiated an Asset Optimization Strategy project to assess equipment health and generate a long-term plan for proactive infrastructure replacement and enhanced maintenance practices. It is anticipated that, over time, this strategy will improve reliability performance as it pertains to PPL Electric's distribution, substation and transmission assets.

**Nothing Found:** This description is recorded when the responding crew can find no cause for the interruption. That is, when there is no evidence of equipment failure, damage, or

contact after a line patrol is completed. For example, during heavy thunderstorms, when a line fuse blows or a single-phase OCR locks open and when closed for test, the fuse holds, or the OCR remains closed, and a patrol reveals nothing.

6) *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.)*

Inspection & Maintenance Goals/Objectives	Annual Budget	3 <sup>rd</sup> Quarter		Year-to-date	
		Budget	Actual	Budget	Actual
<b>Transmission</b>					
Transmission C-tag poles (# of poles)	200	83	63	183	147
Transmission arm replacements (# of sets)	300	119	151	284	156
Transmission air break switch inspections (# of switches)	100	28	23	93	57
Transmission lightning arrester installations (# of sets)	100	28	21	93	48
Transmission pole inspections (# of poles) <sup>8</sup>	8,500	400	400	8,500	8,533
Transmission tree side trim-Bulk Power (linear feet)	161,155	70,651	195,578	143,194	711,034
Transmission herbicide-Bulk Power (# of acres)	3,188	1,846	1,292	2,778	1,603
Transmission reclearing (# of acres)	4,905	870	1,812	4,446	8,045
Transmission danger tree removals-Bulk Power (# of trees)	6,431	1,543	7,115	5,980	30,435
<b>Substation</b>					
Substation batteries (# of activities)	851	136	179	851	829
Circuit breakers (# of activities)	1,638	500	876	1,406	1,513
Substation inspections (# of activities)	1,794	395	382	1,534	1,441
Transformer maintenance (# of activities)	2,177	489	403	1,626	1,452
<b>Distribution</b>					
Distribution C-tag poles replaced (# of poles)	2,000	286	289	1,733	776
C-truss distribution poles (# of poles)	1,800	1,206	2,598	1,416	2,598
Capacitor (MVAR added)	81	10	23	71	70
OCR replacements (# of)	715	174	146	677	552
Oil Switch replacements (# of) <sup>9</sup>	20	2	3	19	6
Distribution air break switch inspections (# of) <sup>10</sup>	310	100	93	244	263
Distribution pole inspections (# of poles)	95,000	30,000	66,057	60,000	66,057
Distribution line inspections (# of miles)	3,000	200	165	1,700	1,065
Group relamping (# of lamps)	16,029	4,000	3,000	8,000	3,000
Test sections of underground distribution cable	430	133	154	342	437
Distribution tree trimming (# of miles)	6,711	1,981	1,452	5,433	4,478
Distribution herbicide (# of acres)	N/A	N/A	N/A	N/A	N/A
Distribution >18" removals within R/W (# of trees)	903	208	373	750	1,025

<sup>8</sup> New program developed for 2010; inspection and treatment of transmission wood poles.

<sup>9</sup> The line item is being added as a result of an error correction from 2010 annual report.

<sup>10</sup> The line item is being added as a result of an error correction from the 2010 annual report.

Inspection & Maintenance Goals/Objectives	Annual Budget	3 <sup>rd</sup> Quarter		Year-to-date	
		Budget	Actual	Budget	Actual
Distribution hazard tree removals outside R/W (# of trees)	12,069	3,044	5,089	9,186	17,488
LTN manhole inspections (# of)	500	126	168	416	604
LTN vault inspections (# of)	821	204	112	703	445
LTN network protector overhauls (# of)	79	23	6	63	26
LTN reverse power trip testing (# of)	132	31	27	101	81

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

The following table provides the operation and maintenance expenses for PPL Electric, as a whole, which includes the work identified in response to Item (6).

Activity	3 <sup>rd</sup> Quarter		Year-to-date	
	Budget (\$1,000s)	Actual (\$1,000s)	Budget (\$1,000s)	Actual (\$1,000s)
Provide Electric Service	3,092	3,734	8,584	8,539
Vegetation Management	8,102	5,672	23,132	28,058
Customer Response	18,872	17,790	50,035	47,495
Reliability & Maintenance	16,718	13,321	48,794	35,706
System Upgrade	829	374	2,401	1,083
Customer Services/Accounts	33,230	34,244	88,780	84,073
Others	13,772	13,422	42,208	41,555
<b>Total O&amp;M Expenses</b>	<b>94,614</b>	<b>88,556</b>	<b>263,935</b>	<b>246,509</b>

- 8) *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.)*

The following table provides the capital expenditures for PPL Electric, as a whole, which includes transmission and distribution ("T&D") activities.

	3 <sup>rd</sup> Quarter		Year-to-date	
	Budget (\$1,000s)	Actual (\$1,000s)	Budget (\$1,000s)	Actual (\$1,000s)
New Service/Revenue	17,595	17,144	51,969	42,419
System Upgrade	35,308	29,588	98,926	82,422
Reliability & Maintenance	34,072	43,182	90,641	84,382
Customer Response	6,622	7,075	17,142	15,862
Other	6,937	6,219	18,128	11,962
<b>Total</b>	<b>100,534</b>	<b>103,208</b>	<b>276,806</b>	<b>237,047</b>

- 9) *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).*

The following table shows the dedicated staffing levels as of the end of the quarter. Job descriptions are provided in Appendix C.

<b>Transmission and Distribution (T&amp;D)</b>	
Lineman Leader	75
Journeyman Lineman	151
Journeyman Lineman-Trainee	134
Helper	30
Groundhand	35
Troubleman	54
<b>T&amp;D Total</b>	<b>479</b>
<b>Electrical</b>	
Elect Leaders-UG	6
Elect Leaders-Net	9
Elect Leaders-Sub	26
Journeyman Elect-UG	26
Journeyman Elect-Net	7
Journeyman Elect-Sub	42
Journeyman Elect Trainee-UG	8
Journeyman Elect Trainee-Net	10
Journeyman Elect Trainee	38
Helper	13
Laborer-Network	5
Laborer-Substation	10
<b>Electrical Total</b>	<b>200</b>
<b>Overall Total</b>	<b>679</b>

***PPL Electric Utilities Corporation  
Worst Performing Circuit Definition***

PPL Electric uses a Circuit Performance Index (CPI) to define the worst performing circuits on its system. The CPI covers about 1,100 feeders across the PPL Electric service area.

The CPI is derived using the following statistics and weighting factors:

- SAIDI - 35%
- SAIFI - 30%
- Fraction of customers interrupted more than three times - 20%
- Fraction of customers with an interruption over four hours - 15%

Major Events, momentary interruptions, and planned prearranged jobs are excluded.

The CPI values are obtained by multiplying the individual feeder statistics by coefficients based on the 5-year period, 2001-2005. Average values over this period were:

- SAIDI – 121.9 per customer per year
- SAIFI – 0.929 per customer per year
- Fraction of customers interrupted more than three times - 4% per feeder per year
- Fraction of customers with an interruption over four hours - 10% per feeder per year

A hypothetical feeder with the values of SAIDI, SAIFI, and the fraction of customers interrupted more than three times, and the fraction of customers with an interruption over four hours, equal to the 5-year averages would have a CPI value of 100. Any variations in the values of the above criteria would affect the CPI values in accordance with the weighting factors.

***PPL Electric Utilities Corporation  
Service Interruption Definitions***

**Trouble Definitions:** After field investigations and repairs are complete, PPL Electric linemen report the cause of each case of trouble. This information is electronically recorded as a “cause code” number when the job record is closed. PPL Electric cause codes are subdivided into four general classifications: Controllable, Non-Controllable, Public and Non-PPL. The definitions of the cause codes are:

10 – Improper Design	Controllable	<ul style="list-style-type: none"><li>• When an employee or agent of PPL Electric is responsible for an error of commission or omission in the engineering or design of the distribution system. (Facility Records personnel use only)</li></ul>
11 – Improper Installation	Controllable	<ul style="list-style-type: none"><li>• When an employee or agent of PPL Electric is responsible for an error of commission or omission in the construction or installation of the distribution system. (Facility Records personnel use only)</li></ul>
12 – Improper Operation	Controllable	<ul style="list-style-type: none"><li>• When an employee or agent of PPL Electric is responsible for an error of commission or omission in the operation or maintenance of the distribution system. (Facility Records personnel use only)</li></ul>
30 – Trees – Trimming Related <sup>11</sup>	Controllable	<ul style="list-style-type: none"><li>• Outages resulting from conductors contacted by tree growth within the clearance zone defined by the current trimming specification (within the Rights-of-Way).</li></ul>
35 – Trees – Not Trimming Related	Non-Controllable	<ul style="list-style-type: none"><li>• Outages due to trees, but not related to lack of proper tree trimming maintenance. This includes danger timber blown into PPL Electric facilities, and trees or limbs felled by the public.</li></ul>
40 – Animals	Controllable	<ul style="list-style-type: none"><li>• Any outage caused by an animal directly or indirectly coming in contact with PPL Electric facilities. This includes birds, squirrels, raccoons, snakes, cows, etc.</li></ul>
41 – Vehicles	Public	<ul style="list-style-type: none"><li>• When cars, trucks or other types of vehicles or their cargoes strike facilities causing a problem.</li></ul>

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<sup>11</sup> The title and description of this code have been revised for clarity. The purpose and application of the code have not changed.

## Appendix B

51 – Contact/Dig-in	Public	<ul style="list-style-type: none"> <li>• When work in the vicinity of energized overhead facilities results in interruptions due to accidental contact by cranes, shovels, TV antennas, construction equipment (lumber, siding, ladders, scaffolding, roofing, etc.).</li> <li>• When contact is made by a non-employee with an underground facility causing interruption.</li> </ul>
60 – Equipment Failure	Controllable	<ul style="list-style-type: none"> <li>• Outages resulting from equipment failures caused by corrosion or contamination from build-up of materials, such as cement dust or other pollutants.</li> <li>• Outages resulting from a component wearing out due to age or exposure, including fuse tearing or breaking.</li> <li>• Outages resulting from a component or substance comprising a piece of equipment failing to perform its intended function.</li> <li>• Outages resulting from a failure that appears to be the result of a manufacturer’s defect or can not be described by any other code indicating the specific type of failure.</li> </ul>
77 – Non-PPL Problem – Other	Non-PPL	<ul style="list-style-type: none"> <li>• Where no PPL Electric or customer facilities were affected, and no repair or restoration was carried out on PPL Electric equipment.</li> </ul>
78 – Non-PPL Problem – Customer Facility	Non-PPL	<ul style="list-style-type: none"> <li>• Where no PPL Electric facilities were affected, and no repair or restoration was carried out on PPL Electric equipment.</li> </ul>
80 – Scheduled Outage <sup>12</sup>	Controllable	<ul style="list-style-type: none"> <li>• Interruptions under the control of a PPL Electric switchman or direction of a PPL Electric System Operator for the purpose of performing <u>scheduled</u> maintenance, repairs and capacity replacements for the safety of personnel and the protection of equipment.</li> <li>• Includes requests from customers for interruption of PPL Electric facilities.</li> </ul>

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<sup>12</sup> Interruptions under the control of a PPL Electric switchman or the direction of a PPL Electric System Operator for the purpose of isolating damaged facilities to make repairs are reported using the initial cause of the damage when the interruption is taken immediately, but are reported as a scheduled outage when the interruption is postponed.

## Appendix B

85 – Directed by Non-PPL Authority	Non-Controllable	<ul style="list-style-type: none"> <li>• Interruptions under the control of a PPL Electric switchman or direction of a PPL Electric System Operator for the purpose of dropping load or isolating facilities upon request during emergency situations.</li> <li>• Interruptions which cannot be postponed or scheduled for a later time, and include situations like load curtailment during system emergencies, and requests of civil authorities such as fire departments, police departments, civil defense, etc. for interruption of PPL Electric facilities.</li> </ul>
90 – Other – Controllable (Lineman provides explanation)	Controllable	<ul style="list-style-type: none"> <li>• Interruptions caused by phase to phase or phase to neutral contacts, resulting from sleet or ice dropping off conductors, galloping conductors, or any other phase to phase or phase to neutral contact where weather is a factor.</li> <li>• Interruptions resulting from excessive load that cause that facility to fail.</li> <li>• When restoration of service to a facility, which had been interrupted for repairs or other reasons, causes an additional interruption to another facility which had not been involved in the initial interruptions.</li> <li>• Controllable interruptions or Power Service Problems whose cause is not described by one of the previous controllable cause codes.</li> </ul>
96 – Nothing Found	Non-Controllable	<ul style="list-style-type: none"> <li>• When no cause for the interruption can be found.</li> <li>• When there is no evidence of equipment failure, damage or contact after line patrol is completed. This could be the case during a period of heavy thunder and lightning, when a line fuse blows or a single phase OCR locks open.</li> <li>• When closed for test, the fuse holds or the OCR remains closed. A patrol of the tap reveals nothing.</li> </ul>
98 – Other Public (Lineman provides explanation)	Public	<ul style="list-style-type: none"> <li>• All outages resulting from gunfire, civil disorder, objects thrown, or any other act intentionally committed for the purpose of disrupting service or damaging company facilities.</li> </ul>

**Appendix B**

<p>99 – Other – Non-Controllable (Lineman provides explanation)</p>	<p>Non-Controllable</p>	<ul style="list-style-type: none"><li>• Any outage occurring because of a fire, flood or a situation that develops as a result of a fire or flood. Do not use when facilities are de-energized at the request of civil authorities.</li><li>• When an interruption is caused by objects other than trees, such as kites, balls, model airplanes, roofing material, or fences, being accidentally blown or thrown into overhead facilities.</li><li>• All problems caused by contact of energized equipment with facilities of other attached companies or by trouble on customer owned equipment.</li><li>• Interruptions or power service problems whose cause is not described by one of the previous non-controllable cause codes, but is not affected by a PPL Electric employee's decisions.</li></ul>
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***PPL Electric Utilities Corporation  
Job Descriptions***

***Transmission and Distribution***

Groundhand	<ul style="list-style-type: none"><li>• Performs manual labor and assists employees in higher job classifications.</li></ul>
Helper	<ul style="list-style-type: none"><li>• Performs semi-skilled labor at any work location on de-energized overhead and underground transmission, and distribution facilities to prepare the employee for entrance into the Journeyman Lineman Apprenticeship Program.</li></ul>
Journeyman Lineman	<ul style="list-style-type: none"><li>• Works by himself or as part of a crew on the maintenance, operation, and construction activities of the transmission and distribution systems associated with, but not limited to, PPL Electric facilities.</li></ul>
Journeyman Lineman-Trainee	<ul style="list-style-type: none"><li>• Works by himself or as part of a crew on the maintenance, operation, and construction activities of the transmission and distribution systems associated with, but not limited to, PPL Electric facilities.</li></ul>
Lineman Leader	<ul style="list-style-type: none"><li>• Responsible for completing assigned work by directing one or multiple groups of employees involved in the maintenance, operation, and construction activities of the transmission and distribution systems associated with, but not limited to, PPL Electric facilities.</li><li>• Engage in and perform work along with providing the necessary leadership, all-around knowledge, initiative, judgment, and experience to produce a quality job.</li><li>• Performs all the direct duties of the Journeyman Lineman when not acting as a Lineman Leader.</li></ul>
Troubleman	<ul style="list-style-type: none"><li>• Investigates and resolves trouble calls, voltage abnormalities on transmission and distribution systems associated with, but not limited to, PPL Electric facilities.</li></ul>

***Electrical***

<p>Electrician Leader</p> <ul style="list-style-type: none"> <li>- Substation</li> <li>- Network</li> <li>- Underground</li> </ul>	<ul style="list-style-type: none"> <li>• Responsible for completing assigned work by directing one or multiple groups of employees involved in the construction and maintenance activities of the transmission and distribution systems associated with, but not limited to, PPL Electric facilities.</li> <li>• Engage in and perform work along with providing the necessary leadership, all-around knowledge, initiative, judgment, and experience to produce a quality job.</li> <li>• Performs all direct duties of the Journeyman Electrician when not acting as a leader.</li> </ul>
<p>Helper</p> <ul style="list-style-type: none"> <li>- Substation</li> <li>- Network</li> <li>- Underground</li> </ul>	<ul style="list-style-type: none"> <li>• Performs manual labor at any work location including those areas containing non-exposed energized electrical equipment, and to prepare the employee for entrance into the Apprenticeship Program.</li> </ul>
<p>Laborer</p> <ul style="list-style-type: none"> <li>- Substation</li> <li>- Network</li> <li>- Underground</li> </ul>	<ul style="list-style-type: none"> <li>• Performs manual labor and assists employees in higher job classifications.</li> </ul>
<p>Journeyman Electrician</p> <ul style="list-style-type: none"> <li>- Substation</li> <li>- Network</li> <li>- Underground</li> </ul>	<ul style="list-style-type: none"> <li>• Normally under limited supervision performs and is responsible for work associated with, but not limited to, PPL Electric facilities involving the highest degree of skill in construction and maintenance work associated with substations, LTN or underground distribution and transmission.</li> <li>• Uses microprocessor based equipment for troubleshooting and revising relay logic and its control systems related to the Field Services electrical discipline.</li> </ul>
<p>Journeyman Electrician - Trainee</p> <ul style="list-style-type: none"> <li>- Substation</li> <li>- Network</li> <li>- Underground</li> </ul>	<ul style="list-style-type: none"> <li>• Normally under limited supervision performs and is responsible for work associated with, but not limited to, PPL Electric facilities involving the highest degree of skill in construction and maintenance work associated with substations, LTN or underground distribution and transmission.</li> <li>• Uses microprocessor based equipment for troubleshooting and revising relay logic and its control systems related to the Field Services electrical discipline.</li> </ul>

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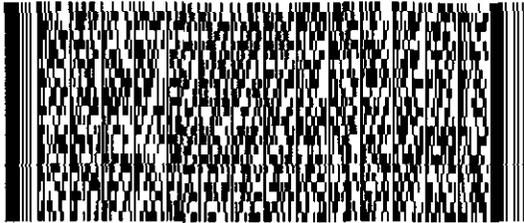
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