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FEDERAL EXPRESS

July 29, 2011

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

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JUL 29 2011

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

**Re: PPL Electric Utilities Corporation
Quarterly Reliability Report for the
Period Ended June 30, 2011
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 June 30, 2011. 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 July 29, 2011, 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

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JUL 29 2011 **PPL Electric Utilities**

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU



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

July 2011

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.*

A severe thunderstorm affected PPL Electric Utilities Corporation's service area beginning during the early evening of Thursday, May 26, 2011, and continued into the early morning hours of Friday, May 27, 2011. The severe storm event consisted of heavy wind gusts up to 58 mph, heavy rain, thunder, lightning, and three tornadoes with wind speeds between 90-110 mph. The territory experienced a total of 1,341 cases of trouble resulting in 182,478 customer service interruptions. A total of 97,325 customers experienced a service interruption lasting longer than six hours; 62,831 customers were without service for more than 12 hours; and 31,101 customers were without service for 24 hours or longer. There were three permanent 69 kV line failures, one as a result of trees and tree branches contacting the line, and two were a result of broken poles. In addition, numerous 12 kV line outages occurred. The last customers were returned to service at 9:00 PM on Tuesday, May 31, 2011.

To minimize the impact of similar future events, PPL Electric is in the process of updating and revising its Emergency Response Plan. The primary objectives of the Plan are to:

- Document the processes for the electric delivery system restoration under different levels of emergency or disaster conditions.
- Identify the threshold for expanding participation in the event beyond a few key organizations and into a structured process shared by the entire PPL Electric organization.
- Streamline the restoration of services and provide better restoration information to customers.
- Refine roles and accountabilities.
- Refine the feedback mechanism for assessing restoration performance following an event and allow for improved continuous adjustments.

- 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 June 30, 2011.

SAIFI (Benchmark = 0.98; Rolling 12-month Std. = 1.18)	1.127
CAIDI (Benchmark = 145; Rolling 12-month Std. = 174)	131
SAIDI (Benchmark = 142; Rolling 12-month Std. = 205)	148
MAIFI¹	4.991
Average Number of Customers Served²	1,386,827
Number of Sustained Customer Interruptions (Trouble Cases)	19,902
Number of Customers Affected³	1,563,124
Customer Minutes of Interruptions	204,576,612
Number of Customer Momentary Interruptions	6,921,030

During the 2nd quarter, there was one (1) PUC major event, two (2) PUC-reportable storms ($\geq 2,500$ customers interrupted for ≥ 6 hours) and four (4) 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.

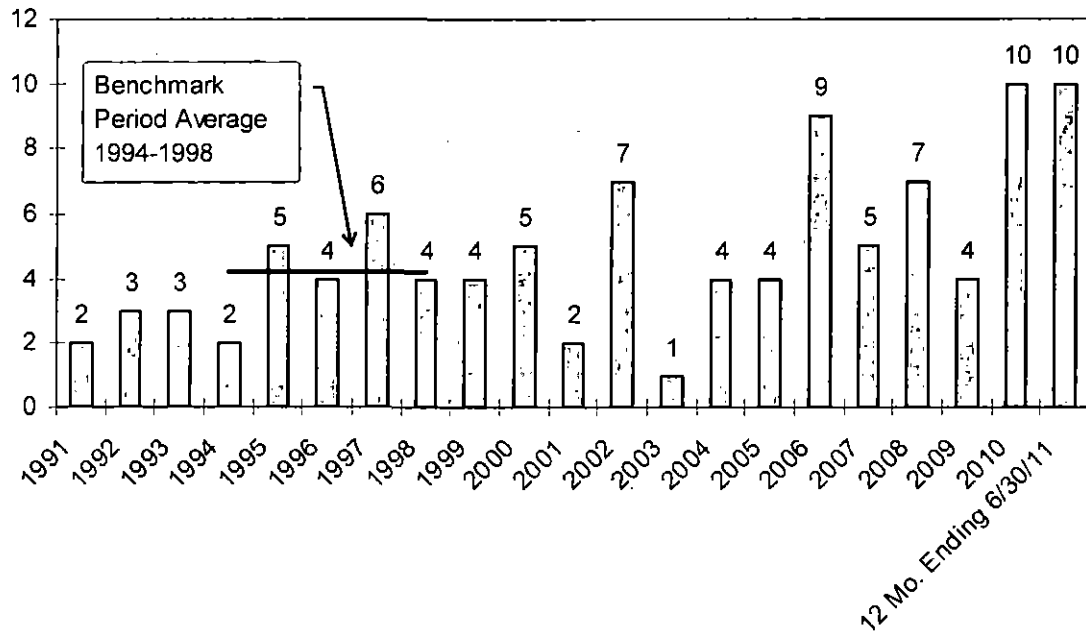
Specifically, during the 12-month reporting period, there was one (1) PUC major event and ten (10) PUC-reportable storms ($\geq 2,500$ customers interrupted for ≥ 6 hours) other than major events.

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

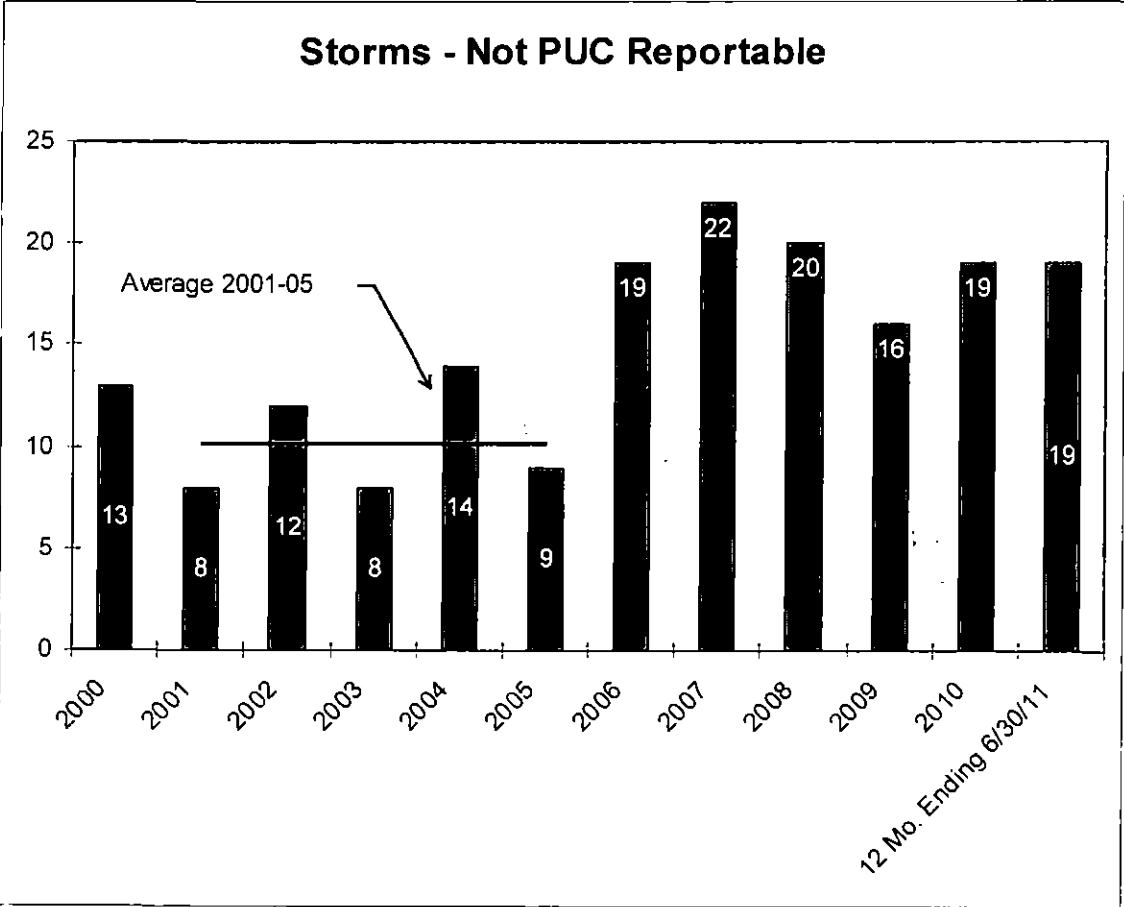
² PPL Electric calculates the annual indices using customers served at the end of the period. This is consistent with the method used to calculate PPL Electric's benchmarks.

³ 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 nineteen (19) storms that were not reportable, but which did require the opening of one or more area emergency centers to manage restoration efforts. This is 86% higher than the average of 10.2 non-reportable storms per year for the five years from 2001 through 2005.



- 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 ⁴	Customers	Cases of Trouble ⁵	Customer Minutes Interrupted	CPI
1	10803	17.05	195	3,316	12.00	61	12	202,305	2183
2	43202	10.19	332	3,387	0.00	1155	61	3,911,705	1948
3	22602	6.26	232	1,451	4.99	1523	71	2,210,319	1189
4	22002	5.16	283	1,462	0.00	1391	73	2,033,266	1157
5	26601	4.70	234	1,099	1.00	1287	51	1,414,605	1054
6	24401	6.63	117	775	26.98	1245	63	964,761	975
7	28102	4.80	137	659	0.00	1714	84	1,128,893	972
8	54701	6.60	98	645	10.11	1851	74	1,194,320	942
9	13704	6.56	94	613	3.11	1573	53	964,547	938
10	52403	4.75	158	752	3.03	1156	41	869,630	889
11	12302	4.99	154	768	2.55	1509	21	1,158,349	875
12	24402	3.23	164	529	2.01	493	15	260,733	861
13	13701	6.12	82	499	4.90	1606	22	801,417	838
14	17902	6.89	46	315	11.18	982	45	309,002	829
15	14404	5.37	97	520	8.09	1537	35	798,670	811
16	47501	3.91	451	1,762	1.00	765	18	1,347,800	795
17	28001	3.84	136	522	2.99	1788	79	932,803	794
18	26904	13.22	93	1,235	14.00	18	14	22,236	790
19	65802	4.30	129	555	19.05	1895	24	1,052,363	790
20	64402	4.47	115	511	8.02	354	11	181,070	788
21	26002	4.26	228	971	8.05	1194	66	1,158,939	781
22	13302	4.11	100	409	7.12	1406	15	575,294	772
23	44701	3.53	129	454	10.01	1067	40	484,317	772
24	11001	6.62	128	850	6.53	866	46	736,106	764
25	60603	3.09	419	1,293	5.03	1922	28	2,484,497	754
26	46801	4.52	65	295	0.01	1120	34	330,219	745
27	66002	4.48	103	462	1.00	589	11	272,218	742
28	12701	2.84	315	896	7.02	1519	50	1,360,518	728

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

⁵ Cases of trouble are the number of sustained customer service interruptions.

WPC Rank	Feeder ID	SAIFI	CAIDI	SAIDI	MAIFI ⁴	Customers	Cases of Trouble ⁵	Customer Minutes Interrupted	CPI
29	52401	4.05	135	547	0.00	1433	73	784,420	711
30	44703	4.70	183	860	14.03	1747	43	1,502,613	711
31	43401	4.42	173	765	0.00	994	60	760,324	709
32	52402	4.27	183	781	2.67	1649	62	1,287,906	687
33	15601	5.02	65	327	5.99	836	41	273,782	686
34	15603	4.10	66	269	14.17	1067	21	286,589	683
35	40802	9.40	137	1,291	4.03	981	7	1,266,225	682
36	60904	4.09	82	336	2.89	1928	21	647,426	672
37	20601	3.81	144	548	0.00	1455	42	797,961	671
38	47502	3.16	307	969	1.19	790	22	765,639	665
39	64802	3.17	223	708	4.04	1272	40	901,170	660
40	10805	3.99	60	237	6.01	1195	14	283,519	644
41	56802	4.03	112	452	8.53	1405	49	635,649	642
42	13102	3.94	128	502	5.00	2025	53	1,017,431	637
43	13602	4.00	100	400	3.99	1700	38	680,160	616
44	57702	3.80	82	314	16.98	1081	22	339,082	613
45	23401	3.41	201	686	2.00	1742	51	1,195,491	611
46	43201	0.79	93	73	0.00	946	8	69,289	591
47	41601	2.83	246	696	7.97	424	15	294,955	584
48	10901	1.88	549	1,032	10.28	530	25	547,051	577
49	64202	5.03	74	371	4.00	1013	36	375,448	568
50	46302	4.60	168	771	0.00	1090	58	840,484	566
51	47703	4.01	106	425	9.99	1371	48	582,697	564
52	64701	1.63	757	1,231	5.00	1553	5	1,911,858	564
53	46701	3.77	228	858	6.04	700	26	600,864	563
54	25801	3.29	157	515	0.00	1852	60	954,139	545
55	26001	3.44	167	575	0.00	1335	56	768,082	529
56	20402	3.60	75	270	3.01	1924	50	519,066	526
57	11506	3.48	158	550	4.99	1304	53	717,154	523

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).

Rank	Action	Status	Due/Complete	Result
1	Circuit ID: 10803 CHERRY HILL 08-03			Location: Bethlehem
				CPI: 2183
	7/9/2009: Line inspection-equipment. Inspect line and make repairs.	Completed	12/31/2009	Crews replaced several cut outs and lightning arrestors, reducing outage risk.
	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. The circuit was last trimmed in 2009.
	11/30/2010: Install tie. A project has been placed into the budget to create a 5 mile tie between the Cherry Hill 08-03 line and a new area substation. Factoryville Substation will help improve the reliability of Cherry Hill 08-03 and Mt Bethel 29-02 by providing an alternate source in the radial edge of PPL territory. Both projects are expected to be placed in service in late 2012.	Scheduled for	11/30/2012	

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>
2	Circuit ID: 43202 MILLVILLE 32-02			Location: Sunbury CPI: 1948
	1/16/2009: Expanded Operational Review.	Completed	12/31/2009	No longer among 5% worst performing circuits. EOR complete
	6/1/2010: As a result of high customer outages 32-2 CB was maintained.	Completed	6/7/2010	Reduced outage duration.
	6/1/2010: Perform line maintenance identified by line inspection.	Completed	6/7/2010	Reduced outage risk. Two work requests have been taken out by Distribution Operations to improve the Mordonsville Tap along Rhodemoyer Road and Hogs Back Road. Engineering is complete on these WRs and the project is on track for 12/31/2010 in-service.
	6/7/2010: Install 1 phase OCR(s).	Scheduled for	8/31/2011	
	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.
	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.	Scheduled for	5/31/2012	
	4/18/2011: Install new line and terminal. Reconductor sections of the circuit to 3 phase 477 AL and install ROCS devices.	Scheduled for	11/30/2011	
3	Circuit ID: 22602 KIMBLES 26-02			Location: Pocono CPI: 1189
	1/13/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	3/31/2010	High CPI for this circuit is due to 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).
	10/15/2010: Improve sectionalizing capability.	Scheduled for	8/31/2011	
	10/15/2010: Circuit outage data analysis. Problematic areas identified and line patrol scheduled.	Completed	12/31/2010	Reduced outage risk. Tree problems identified and tree trimming was completed.

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>
4	Circuit ID: 22002 BOHEMIA 20-02			Location: Pocono
				CPI: 1157
	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 switch on the transmission source (Blooming Grove-West Damascus line) to Bohemia resulted in 1,389 Bohemia customers being interrupted for 1 to 4 hours. Long term plan is the install a new tie and split the line to reduce customer count
	4/26/2010: Install tie. SP 33608 build tie from Bohemia 20-2 to Twin Lakes 81-2. This will create a tie for 1,150 radial customers. Remotely operated devices will be installed.	Scheduled for	11/30/2012	
	4/21/2011: Install new line and terminal. SP33607 A new line and terminal at Bohemia will relieve the 20-2 line and reduce the customer count from 1,400 to 750.	Scheduled for	11/30/2012	
5	Circuit ID: 26601 BROOKSIDE 66-01			Location: Scranton
				CPI: 1054
	6/30/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	7/30/2010	Inconclusive. Monitor future performance. Several OCR outages due to trees from outside the ROW and equipment failures have significantly contributed to the CPI of this circuit.
	7/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	8/31/2011	
6	Circuit ID: 24401 TINKER 44-01			Location: Pocono
				CPI: 975
	4/11/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	5/31/2011	In May 2011, a part of the Tinker 44-1 12kV line load was transferred to the East Carbondale 12-6 12kV line. The reliability was significantly improved for the transferred customers.

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>
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7 Circuit ID: 28102 TWIN LAKES 81-02

Location: Pocono

CPI: 972

7/14/2009: Monitor future performance.

Ongoing

Reduced outage risk. Circuit performance has improved substantially in Q1, Q2, and Q3 of 2009.

4/11/2011: Circuit outage data analysis - WPC not on preceding qtr. list.

Completed

5/31/2011

A tree outage (5/31/11) from outside of the right of way fell on the primary line resulting in a blown tap fuse at grid number 76106N45793. A tree outage (5/18/11) from inside the right of way fell on the primary line causing OCR 78282N46075 to operate affecting 207 customers. On April 26th, a size 40 class 4 overhead pole at grid number 78345N46877 broke which resulted in the operation of OCR 78282N46075. A total of 44 customers were affected. On March 7, 2011, an outage occurred on the primary line from a vehicle accident near grid number 77918N44927. A total of 1,714 customers were affected when the accident caused the CB to operate. On March 6th, a tree from outside the right of way fell on the primary line resulting in the operation of the OCR at grid number 78345N46877. This outage affected 44 customers. A tree outage (2/19/11) from outside the right of way caused a fault that tripped the CB at the substation. A total of 1,712 customers were affected including the 1 CEMI 7 customer. On January 8, 2011, a transmission outage occurred affecting the entire 1,720 customers on the circuit. Review with Vegetation Management.

4/21/2011: Improve sectionalizing capability. Replace existing air break with a new telemetric recloser. This will isolate a section of line from the breaker. With the new recloser outages on this section of line will only affect 550 customers instead of 1800.

Canceled

6/30/2011

Inconclusive. Monitor future performance. Could not coordinate OCR with other downstream devices.

7/14/2011: Install tie. SP 33608 builds a new tie between the Bohemia 20-2 and the Twin Lakes 81-2 12kV lines. This project will benefit 1,150 customers on the 20-2 and 81-2 lines. This project will reduce outage durations and increase operational flexibility and reliability in the area.

Scheduled for

11/30/2012

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>
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8 Circuit ID: 54701 NEW BLOOMFIELD 47-01

Location: West Shore

CPI: 942

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.
7/1/2010: Improve sectionalizing capability. Automate existing tie to the Newport 50-1 line with ROCS devices.	Completed	7/30/2010	ROCS device will allow for faster sectionalizing for approximately 300 customers.
7/1/2010: Line inspection-equipment. Repair insulators on New Buffalo State Park tap.	Completed	7/7/2010	Reduced outage risk.
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.
10/5/2010: Tree trimming-selected line segments only (hot spots). Trim hazard trees on sections of the main three phase line.	Completed	10/31/2010	Reduced outage risk. Reduced exposure to vegetation related outages.
11/12/2010: Investigate 3 phase OCR(s). Investigate the mis-operation of recloser. Check settings and swap contols.	Completed	2/10/2011	Reduced outage risk. Existing three phase hydraulic recloser was replaced with a new electronic VCR model.
1/26/2011: Expanded Operational Review.	EOR planned	12/31/2011	
4/20/2011: Tree trimming. Trim circuit as part of four year vegetation management cycle.	Scheduled for	12/30/2011	
5/25/2011: Circuit outage data analysis.	Completed	5/25/2011	New Bloomfield 5-47-01 continues to remain on the WPC list for the fifth consecutive quarter. The largest CPI contributor has been the percentage of customers with >3 interruptions. In the past four quarters, the circuit breaker has experienced five breaker interruptions, mostly due to trees from outside the trimming right of way. Two of the largest contributing outages to the CPI have been caused by the miscoordination of the breaker VCR with a downstream VCR.
5/25/2011: Investigate an alternative VCR protection coordination scheme between the substation VCR and a downstream device.	Completed	6/22/2011	Reduced outage risk. Protection settings have been updated to allow for better coordination.
5/25/2011: Evaluate potential distribution line. Evaluate potential USF project for a new distribution circuit in the New Bloomfield area to improve reliability. A new circuit will reduce the number of customers served by the breaker and will provide an additional tie in the event of an outage.	Completed	6/28/2011	The new circuit cuts the customer count of the New Bloomfield 47-1 line in roughly half.
5/25/2011: Install fuse(s). Install additional fusing on a CEMI tap to reduce the exposure seen by customers.	Scheduled for	12/31/2011	
5/25/2011: Improve sectionalizing capability. Install an automated ROCS device near the midpoint of a six mile section of three phase line to improve sectionalizing capability.	Scheduled for	12/31/2012	

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>
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6/28/2011: Install new line and terminal. Construct a new line and terminal at Green Park Substation to relieve reliability on the adjacent New Bloomfield 47-1 line.

9 Circuit ID: 13704 SCHNECKSVILLE 37-04

Location: Lehigh

CPI: 938

5/14/2008: Load balancing. Completed 9/30/2009

10/11/2010: Circuit outage data analysis - WPC not on preceding qtr. list. Completed 11/30/2010

4/20/2011: Circuit outage data analysis. Completed 4/20/2011

Reduced outage risk.

The aerial cable getaway for the Schnecksville 37-04 line failed twice in the past year. The getaway has since been replaced. Two additional OCR outages, due to vehicle contact and trees from outside the right of way, interrupted approximately 600 customers.

The outage history for Schnecksville 37-04 has been reviewed for the period ending with Q1 2011. The circuit experienced four major outages in the past year. A transmission outage of unknown cause interrupted the substation during a Q1 2011 storm. The transmission line held when reclosed for test.

The three remaining outages were due to equipment failures in Q4 2010. Two of which occurred on the same day when the operating bus disconnect failed in Schnecksville Substation. A separate outage occurred when an overhead switch failed while customers were transferred to the adjacent Schnecksville 37-01 line for repairs. The abnormal circuit configuration and repairs under construction delayed customer restoration.

Many of the major contributors to the CPI have been equipment failures that have since been mitigated. Performance will continue to be monitored to determine if any proactive steps may be taken to prevent similar interruptions

5/18/2011: Protection coordination review Completed 5/18/2011

The protection scheme on this circuit is well laid out. No adjustments needed at this time.

10 Circuit ID: 52403 GREEN PARK 24-03

Location: West Shore

CPI: 889

3/17/2009: Expanded Operational Review. Reliability Review Completed 7/06/09. Voltage Profile Completed 7/06/09. EOR initiated 12/31/2009

11/11/2009: Install fuse(s). Install 4 tap fuses Completed 4/30/2010

1/26/2011: Expanded Operational Review. EOR planned 12/31/2011

7/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list. Scheduled for 8/31/2011

Inconclusive. Monitor future performance.

Reduced customer count affected by each outage.

11 Circuit ID: 12302 LANARK 23-02

Location: Lehigh

CPI: 875

4/11/2011: Circuit outage data analysis - WPC not on preceding qtr. list. Completed 5/31/2011

5/10/2011: Line reconfiguration Completed 5/10/2011

The largest contributor to the circuit performing index was the number of customers experiencing more than three interruptions. The seven outages caused by trees were main contributors to the multiple interruptions.

Transferred about 460 customers to the new Coopersburg 9-1 line.

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>
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12 Circuit ID: 24402 TINKER 44-02

Location: Pocono

CPI: 861

7/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list. Scheduled for 8/31/2011

13 Circuit ID: 13701 SCHNECKSVILLE 37-01

Location: Lehigh

CPI: 838

10/8/2008: Load balancing. Canceled 9/15/2010

1/14/2011: Circuit outage data analysis - WPC not on preceding qtr. list. Completed 2/18/2011

The Schnecksville 37-01 line experienced five major outages. The first outage occurred when a tree from outside the right of way interrupted the circuit breaker. A transmission outage of unknown cause interrupted the substation during a Q1 2011 storm. The transmission line held when reclosed for test.

The three remaining outages were due to equipment failures in Q4 2010. Two of which occurred on the same day when the operating bus disconnect failed in Schnecksville Substation. A separate outage occurred when an overhead switch failed while customers from the adjacent Schnecksville 37-04 line were being carried by the 37-01 line for repairs. The abnormal circuit configuration and repairs under construction delayed customer restoration.

Many of the major contributors to the CPI have been equipment failures that have since been mitigated. Performance will continue to be monitored to determine if any proactive steps may be taken to prevent similar interruptions in the future.

5/18/2011: Protection coordination review Completed 5/18/2011

The protection scheme on this circuit is well laid out. No adjustments needed at this time.

14 Circuit ID: 17902 BARTONSVILLE 79-02

Location: Pocono

CPI: 829

10/11/2010: Circuit outage data analysis - WPC not on preceding qtr. list. Completed 11/30/2010

Five circuit breaker outages contributed to the high CPI of this circuit. Two were caused by transmission outages, one was a tree from outside the ROW, one pole hit, and one animal contact.

4/20/2011: Reconductor line. Project SP51313 will reconductor a quarter mile of 2 phase line to 3 phase. This will allow a poor performing section of line to be bypassed and isolated. Completed 6/30/2011

Reduced outage duration.

4/20/2011: Improve sectionalizing capability. This circuit will be automated as part of the second phase of the PPL Smart Grid Project. This will allow automatic isolation and restoration of customers during outage conditions. Scheduled for 12/31/2013

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>
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15 Circuit ID: 14404 SO SLATINGTON 44-04

Location: Lehigh

CPI: 811

10/11/2010: Load balancing.	Canceled	1/1/2011	Determined that rebalancing was not needed.
10/11/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	11/30/2010	This circuit had four circuit breaker outages over the past year. Two were due to animal contact. Animal guarding has been done at the substation as a result. Due to these outages, all the customers on the 44-4 line saw 4 outages. The greater than 3 outages contribution was 58% of the CPI.
4/20/2011: Circuit outage data analysis.	Completed	4/20/2011	The outage history for SO Slatington 44-04 has been reviewed for the period ending with Q1 2011. The circuit's reliability has improved since the three breaker interruptions in early Q3 2010. All three of which have been mitigated with the installation of animal guarding as well as the replacement of failed equipment. The circuit is expected to drop from the WPC list once these outages fall off. Until then, the circuit's performance will continue to be monitored to determine if additional action items are warranted.
6/17/2011: Install telemetric VCR.	Scheduled for	11/17/2013	

16 Circuit ID: 47501 NEW COLUMBIA 75-01

Location: Sunbury

CPI: 795

1/6/2011: Expanded Operational Review. EOR Planned for 2011	EOR initiated	12/31/2011	
1/6/2011: Thermographic inspection-OH line. Thermovision Inspection of 2 and 3 phase sections to be completed early 2011.	Completed	2/9/2011	Reduced outage risk. All necessary repairs completed.
7/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	8/31/2011	

17 Circuit ID: 28001 TAFTON 80-01

Location: Pocono

CPI: 794

10/11/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	11/30/2010	This circuit experienced a long duration breaker outage due to trees - not trimming related in December 2010 during a stormy/windy day. A variety of issues have contributed to outages on this circuit e.g., wind, transmission misoperation, and animal guards, etc. have been listed as contributors to the frequency of outages.
4/20/2011: Install tie. A new 3 phase tie line between Tafton 80-1 and Newfoundland 83-2 is currently being engineered and is expected to be completed by the end of 2011. The new tie will allow greater operational flexibility, reduce outage exposure, and increase ability to remotely isolate and restore customers.	Scheduled for	12/31/2011	

18 Circuit ID: 26904 SCRANTON 69-04

Location: Scranton

CPI: 790

7/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	8/31/2011	Inconclusive. Monitor future performance. SP24705 relieved this circuit in May of 2011. Very short circuit no major outages
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<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>
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19 Circuit ID: 65802 ROHRERSTOWN 58-02

Location: Lancaster

CPI: 790

4/13/2009: Line inspection-equipment. LMI Inspection performed on 2 phase and 3 phase line - 4 miles total	Completed	12/31/2009	Reduced outage risk.
6/24/2009: Install fuse(s). Install 1 new tap fuse at 39901S26394	Completed	7/24/2009	Reduced customer count affected by each outage.
10/5/2009: Improve sectionalizing capability. Hang Fault Indicators on 2 normally closed air breaks.	Completed	10/30/2009	Reduced outage duration.
1/4/2010: Install animal guard(s). Animal Guard 3 locations	Completed	1/11/2010	Reduced outage risk.
4/11/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	5/6/2011	Customers experiencing greater than three outages was the greatest contributor (56%) to the CPI. This was mainly due to several outages caused by trees – both trimming and not trimming related. The circuit is scheduled for tree trimming in 2014.
7/14/2011: Monitor future performance.	Completed	7/14/2011	A project was identified (WR 536056) that would improve the overall reliability of the line.
7/20/2011: Reconductor line. A 3 phase line will be extended and the existing line will be reconducted and re-sectionalized along Marietta Pike. This will greatly decrease the exposure of the line which could decrease both the number and duration of future outages.	Scheduled for	5/31/2013	

20 Circuit ID: 64402 LANDISVILLE 44-02

Location: Lancaster

CPI: 788

7/15/2008: Install fuse(s). Install 3 tap fuses	Completed	12/31/2010	Reduced customer count affected by each outage.
8/7/2008: Install animal guard(s). Install animal guards and fault indicators	Completed	12/31/2009	Reduced outage risk.
8/7/2008: Line inspection-equipment. Update riser pole with failed LA	Completed	12/31/2010	Reduced outage risk.
8/7/2008: Install fuse(s). Upgrade 40K fuse to 100K	Completed	12/31/2010	Reduced outage risk.
7/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	7/19/2011	Customers experiencing greater than three outages was the greatest contributor (58%) to the CPI. This was mainly due to outages caused by trees, not trimming related. The circuit is scheduled for tree trimming in 2014. This circuit will be reviewed in more detail at the upcoming worst performing circuit meeting scheduled for August 12, 2011.

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>
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21 Circuit ID: 26002 WEST DAMASCUS 60-02

Location: Pocono

CPI: 781

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 6/16/2011

7/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.

Completed 8/31/2011

This circuit experienced a majority of tree related outages . On 4/28/2011 a non trimming related tree outage operated the circuit breaker causing a large outage to 1192 customers. On 4/28/2011 a non trimming related tree related caused a OCR to operate and interrupt 91 customers. In addition to tree related outages, a three phase OCR caused a large outage due to equipment failure on 6/24/2011.

22 Circuit ID: 13302 ORVILLA 33-02

Location: Bethlehem

CPI: 772

7/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.

Scheduled for 8/31/2011

23 Circuit ID: 44701 MUNCY 47-01

Location: Susquehanna

CPI: 772

7/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.

Scheduled for 8/31/2011

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

Location: Bethlehem

CPI: 764

4/9/2009: Reconductor line. Reconductor and relocate 20 spans to the road.	Completed	11/30/2010	Reduced outage risk. Line relocated to reduce risk of outage for customers
4/9/2009: 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.	Canceled	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.
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	
4/18/2011: Tree trimming. Trim East Greenville 10-01 circuit as part of 4 year vegetation management cycle. Efforts are being made to ensure circuit is at the top of the spring 2011 trim priority.	Scheduled for	12/30/2011	
5/17/2011: Quarterly WPC Meeting	Completed	5/17/2011	Discussed reliability options and the idea of a new substation to improve reliability in the area. Verified that a new remote controlled switch was installed at 62085S42120.
6/17/2011: Install remotely operated controlled switch at 62160S41744. WR608684.	Scheduled for	12/17/2012	
6/17/2011: Install new remotely operated control switch near 61799S42443.	Scheduled for	12/17/2013	
6/17/2011: Install new substation near the end of the feeder.	Scheduled for	11/30/2015	

25 Circuit ID: 60603 NORTH COLUMBIA 06-03

Location: Lancaster

CPI: 754

5/22/2009: Perform line maintenance identified by line inspection.	Completed	12/31/2009	Reduced outage risk.
1/4/2010: Expanded Operational Review. Reliability Analysis Completed 3/10/10	Completed	12/31/2010	Reduced outage duration.
1/5/2011: Improve sectionalizing capability. Installed fault indicators on 2 under ground dips	Completed	3/23/2011	Reduced outage duration.
1/5/2011: Improve sectionalizing capability. Install fault indicators before and after inaccessible line.	Completed	4/11/2011	Reduced outage duration.
4/11/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	5/6/2011	SAIDI was the greatest contributor (55%) to the CPI. This was due to one tree trimming related outage that accounted for over 2.2 million of the 2.86 million total customer minutes interrupted. Tree trimming is planned for the line in 2011.

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>
26	Circuit ID: 46801 HEPBURN 68-01			Location: Susquehanna
				CPI: 745
	Expanded Operational Review.	Completed	12/31/2009	Reduced outage risk.
	7/6/2010: Install fuse(s).	Canceled	3/1/2011	Reduced customer count affected by each outage.
	7/6/2010: Install fuse(s). Install 3 fuses.	Completed	8/1/2011	Reduced customer count affected by each outage.
	7/7/2010: Install fuse(s).	Completed	3/1/2011	Reduced customer count affected by each outage.
	7/7/2010: Thermographic inspection-OH line.	Completed	3/31/2010	Identified 2 repair locations.
	7/7/2010: Perform line maintenance identified by line inspection.	Completed	7/19/2010	Reduced outage risk.
	7/7/2010: Thermographic inspection-OH line.	Completed	7/19/2010	Reduced outage risk.
	7/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	8/31/2011	
27	Circuit ID: 66002 RHEEMS 60-02			Location: Lancaster
				CPI: 742
	5/7/2010: Line inspection-equipment. Perform Line Inspection on 2 and 3 Phase Line Sections - 5.8 miles	Completed	5/21/2010	Reduced outage risk.
	12/1/2010: Perform line maintenance identified by line inspection. WR 584932, 584933, 584934, 585935	Completed	12/31/2010	The line maintenance work that was identified and completed included the replacement of 4 failed crossarms, the moving of a pole to a less vulnerable location, the replacement of a damaged pole and the repairs to a service entrance cable. These repairs should reduce future outage risks.
	12/8/2010: Expanded Operational Review. Reliability Analysis Completed 5/19/10. Reliability work requests under field review	Completed	12/31/2010	Reduced outage duration.
	1/5/2011: Improve sectionalizing capability. Add remote operating control capability to an existing switch	Scheduled for	6/29/2012	
	1/14/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	4/14/2011	Customers experiencing greater than three outages was the greatest contributor (52%) to the CPI. This was mainly due to several tree related outages (due to non-tree trimming related outages). Tree trimming is planned for the line in 2011.
	6/30/2011: Line inspection-equipment.	Completed	6/30/2011	Reduced outage risk.
	7/14/2011: Tree trimming.	Completed	7/14/2011	Tree trimming was completed during first quarter, 2011.
	7/14/2011: Install animal guard(s).	Completed	7/14/2011	Animal guarding of substation has been confirmed, completed.
	7/14/2011: Install SCADA	Scheduled for	12/31/2012	

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>
28	Circuit ID: 12701 MACUNGIE 27-01			Location: Lehigh
				CPI: 728
	2/28/2008: Relocate inaccessible line. A section along Churchview Road is to be relocated along the road.	Scheduled for	5/31/2013	
	1/14/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	2/18/2011	All the customers on the Macungie 27-1 line experienced four outages in the past year. Two of the four outages were due to substation getaway failures, which were repaired at the time of the interruption. A separate action item has been taken out for the replacement. One outage was due to animal contact and another outage was due to the circuit breaker failing to reclose.
	4/20/2011: Replace UG getaway. Due to recent performance issues, the Macungie 27-01 UG getaway has been identified for replacement as part of the 2011 Asset Optimization Strategy (AOS) plan.	Scheduled for	12/30/2011	
	6/17/2011: Animal guard being installed on entire substation.	Scheduled for	12/31/2015	
	6/17/2011: A new 69/12kV substation is in the budget for 2015. It will be located near the end of the circuit and transfer about 350 customer to the new substation.	Scheduled for	12/30/2015	
29	Circuit ID: 52401 GREEN PARK 24-01			Location: West Shore
				CPI: 711
	3/17/2009: Expanded Operational Review. Reliability Review Completed 8/11/09. Voltage Profile Completed 7/06/09.	Completed	10/30/2009	Reduced customer count affected by each outage.
	3/17/2009: Tree trimming.	Completed	12/31/2009	Reduced outage risk.
	9/2/2009: Install fuse(s). Install 16 new tap fuses.	Completed	11/5/2009	Reduced customer count affected by each outage.
	9/10/2010: Evaluate potential ties. Evaluating project to create tie with 24-03	Completed	9/10/2010	Inconclusive. Monitor future performance. Extensive tree removal completed on this circuit. Not on WPC list. Will reserve project and evaluate should circuit performance degrade.
	1/26/2011: Expanded Operational Review.	EOR planned	12/31/2011	
	4/11/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	5/25/2011	The Green Park 24-02 line is a long radial distribution circuit at the western edge of PPL territory. The feeder has approximately 1,440 customers across 144 circuit miles. The largest CPI contributors have been the percentage of customers with >3 interruptions and SAIDI. Two of the largest interruptions occurred when a failed insulator on the Green Park 69kV tap interrupted the JUNI-SDLE 69kV line. The single distribution tie to New Bloomfield Substation limited the number of customers on Green Park Substation that could be restored while repairs were being made.
	5/25/2011: Evaluate potential ties. Evaluate potential tie between the Green Park 24-01 and Green Park 24-03 lines.	Scheduled for	9/1/2011	

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>
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30 Circuit ID: 44703 MUNCY 47-03

Location: Susquehanna

CPI: 711

4/11/2011: Circuit outage data analysis - WPC not on preceding qtr. list.

Completed

5/31/2011

The number of customers experiencing more than 3 outages attributed to 34% of the CPI score for this circuit. Two outages that affected all of the customers accounted for 40% of the total customer minutes lost. One of these outages was due to a 69kV line outage, and the other was due to a tree taking down the lines during a wet snow storm.

31 Circuit ID: 43401 BENTON 34-01

Location: Sunbury

CPI: 709

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

4/11/2011: Circuit outage data analysis - WPC not on preceding qtr. list.

Completed

5/31/2011

The largest contributor to the CPI Index was SAIDI. Three circuit breaker interruptions accounted for more than 60% of the customer minutes lost. Will follow up with SET regarding breaker. The longest outage was due to a tree taking down the lines causing the circuit breaker to open. The other two breaker interruptions were due to equipment failures.

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>
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32 Circuit ID: 52402 GREEN PARK 24-02

Location: West Shore

CPI: 687

3/17/2009: Expanded Operational Review. Reliability Review Completed 7/30/09. Voltage Profile Completed 7/02/09. Field Work Request Review in Progress.

EOR initiated 12/31/2009

Inconclusive. Monitor future performance.

11/11/2009: Install fuse(s). Install 9 tap fuses

Completed 7/6/2010

Reduced customer count affected by each outage.

4/11/2011: Circuit outage data analysis - WPC not on preceding qtr. list.

Completed 5/25/2011

The Green Park 24-02 line is a long radial distribution circuit at the western edge of PPL territory. The feeder has approximately 1,645 customers across 139 circuit miles. The largest CPI contributors have been the percentage of customers with >3 interruptions and SAIDI. Two of the largest interruptions occurred when a failed insulator on the Green Park 69kV tap interrupted the JUNI-SDLE 69kV line. The single distribution tie to New Bloomfield Substation limited the number of customers on Green Park Substation that could be restored while repairs were being made. Local areas of the circuit were also heavily hit during the 02/02/11 ice storm.

5/25/2011: Install fuse(s). Install additional fusing on a CEM1 tap to reduce the exposure seen by customers.

Scheduled for 12/31/2011

5/25/2011: Reconductor line. Reconductor approximately 8,500 feet of single phase CWC to 1/0 ACSR XLP or equivalent.

Scheduled for 12/31/2012

5/25/2011: Improve sectionalizing capability. Install automated ROCS devices between the Green Park 24-02 and Green Park 24-03 circuits to allow for faster sectionalizing.

Scheduled for 12/31/2011

5/25/2011: Install 1 phase OCR(s). Replace a single phase 1004H recloser at to a 140V4h recloser for increased reliability and better coordination.

Scheduled for 3/31/2012

33 Circuit ID: 15601 NO STROUDSBURG 56-01

Location: Pocono

CPI: 686

7/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.

Scheduled for 8/31/2011

7/20/2011: Improve sectionalizing capability. This circuit will be automated as part of the second phase of the PPL Smart Grid Project. This will allow automatic isolation and restoration of customers during outage conditions.

Scheduled for 12/31/2013

7/20/2011: Install tie. SP51415 Will build a 3 phase tie line between the 15601 and 15604. This will create a tie line for 750 currently radial customers.

Scheduled for 11/30/2014

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>
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34 Circuit ID: 15603 NO STROUDSBURG 56-03

Location: Pocono

CPI: 683

2/14/2008: Monitor future performance.	Ongoing		
7/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	8/31/2011	
7/20/2011: Improve sectionalizing capability. This circuit will be automated as part of the second phase of the PPL Smart Grid Project. This will allow automatic isolation and restoration of customers during outage conditions.	Scheduled for	12/31/2013	

35 Circuit ID: 40802 EXCHANGE 08-02

Location: Central

CPI: 682

6/15/2009: Install fuse(s). Install 5 tap fuses to reduce exposure risk to substation.	Completed	4/30/2010	Reduced outage risk.
6/15/2009: Install fault indicators on sectionalizing air break.	Completed	10/23/2009	Improved troubleshooting and restoration times.
2/11/2010: Improve sectionalizing capability. Take tap change to increase 12 kV voltage.	Completed	11/10/2010	Increased substation voltage to allow better transfer capability.
1/14/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	2/18/2011	SAIDI was 80% of the CPI score. The largest outage contributing to CMI was due to an equipment failure while transferring load from Mt. Carmel Substation to Exchange 8-2 to perform maintenance at Mt. Carmel. It was determined that Planning will develop several alternatives for improving transfers in this area.
3/23/2011: Circuit outage data analysis. The Distribution Planner will analyze several alternatives for improving transfers between Exchange and Mt. Carmel substation.	Completed	4/30/2011	Two projects were identified to improve transfers at Exchange Substation. The first project is a new line and terminal at Exchange substation, that will reduce load and customer count on the Exchange 8-1 feeder. The second project is a new line and terminal at Mt. Carmel substation, that will reduce load and customer count on the Mt. Carmel 78-2 feeder.
4/20/2011: Install new line and terminal. New line and terminal at Exchange substation to reduce load and customer count on the Exchange 8-1 feeder. Planned to improve transfers between Exchange and Mt. Carmel Substations.	Scheduled for	12/1/2014	
4/20/2011: Install new line and terminal. New line and terminal at Mt. Carmel substation to reduce load and customer count on the Mt. Carmel 78-2 feeder. Planned to improve transfers between Exchange and Mt. Carmel Substations.	Scheduled for	12/1/2014	
5/4/2011: Improve sectionalizing capability. Upgrade existing LBAS to ROCS.	Scheduled for	10/28/2012	

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>	
36	Circuit ID: 60904 DONEGAL 09-04			Location: Lancaster	CPI: 672
	5/7/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	7/9/2010	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 2008. A severe wind storm on 6/24/10 caused 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.	
	5/7/2010: 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: Reconductor line. WR 587967 initiated to reconductor/rebuild existing double circuit section of Donegal 09-2 & 09-4.	Scheduled for	6/29/2012		
	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.	
	4/1/2011: Line inspection-equipment. Perform Line Inspection on 2 & 3 phase line sections	Completed	4/7/2011	The inspection identified a failed pole, several failed crossarms, and some additional minor maintenance items. WR's will be written to make the needed repairs. These will be tracked under a separate WPC action item.	
	7/15/2011: Replace OCR	Scheduled for	7/15/2012	WR 626735; new OCR at Route 230 and Florin Hill	
	7/15/2011: Replace Breaker	Scheduled for	7/15/2014	Breaker replacement with 9-2	
37	Circuit ID: 20601 GREENWOOD 06-01			Location: Central	CPI: 671
	1/14/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	2/18/2011	SAIDI was 34% of the CPI score. The majority of the outages were due to trees, not trimming related. A 2.5 mile tie project was completed at the end of 2010 that is expected to significantly reduce the duration and number of customers affected per outage.	
	7/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	8/31/2011		
38	Circuit ID: 47502 NEW COLUMBIA 75-02			Location: Sunbury	CPI: 665
	1/6/2011: Thermographic inspection-OH line. Thermovision Inspection of 2 and 3 phase sections to be completed early 2011.	Completed	2/8/2011	Reduced outage risk. Completed 2/9/2011 - All necessary repairs completed.	
	1/6/2011: Expanded Operational Review. EOR Planned for 2011	EOR initiated	12/31/2011		
	7/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	8/31/2011		

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>
39	Circuit ID: 64802 MOUNT NEBO 48-02			Location: Lancaster East
				CPI: 660
	4/28/2009: Expanded Operational Review. Voltage Profile Completed 4/21/09 Reliability Analysis Completed 4/21/09	Completed	12/31/2009	Reduced outage risk.
	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.
	7/15/2009: Line inspection-equipment. Complete Line Inspection on multiphase line sections - 6.6 miles total	Completed	8/10/2009	Reduced outage risk.
	10/7/2009: Install 3 phase OCR(s). Replace Hydraulic OCR with Telemetric Electronic OCR 40077s20754	Completed	10/29/2009	Reduced outage duration.
	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: Install tie. Construct Tie to West Willow 75-3 via Marticville Rd	Scheduled for	11/30/2013	
	10/13/2010: Install tie. Construct Tie to West Willow 75-3 via River Rd	Scheduled for	12/31/2012	
	10/13/2010: Reconductor line. Reconductor 1st 12 spans from Substation to 477 Al XLP (WR 447334)	Completed	12/31/2010	Reduced outage risk.
	4/20/2011: Line inspection-equipment. Additional Line Inspection on Multi-Phase Equipment	Completed	4/20/2011	Reduced outage risk.
40	Circuit ID: 10805 CHERRY HILL 08-05			Location: Bethlehem
				CPI: 644
	4/11/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	5/31/2011	The major contributor to the circuit performing index was customers experiencing more than three interruptions.
	4/11/2011: Monitor future performance.	Ongoing	5/31/2011	2 large outages contributed to the circuit performing index. The outages were caused by a vehicle accident and trees not trimming related.

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>
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41 Circuit ID: 56802 BENVENUE 68-02

Location: West Shore

CPI: 642

4/11/2011: Circuit outage data analysis - WPC not on preceding qtr. list.

Completed

5/25/2011

The largest CPI contributor has been the percentage of customers with >3 interruptions. The Benvenue 68-02 line experienced two circuit breaker interruptions when a failed insulator on the Green Park 69kV tap interrupted the JUNI-SDLE 69kV line. In addition, there have been two long duration vehicle pole hits affecting 930 customers. Restoration times were delayed due to traffic caused by the vehicle accidents. The pole that was hit is behind a guard rail and down a steep embankment away from the road. The two accidents are considered to be by chance. Relocating the pole does not provide any clear reliability benefit.

5/15/2011: Improve sectionalizing capability. Automate tie with the Rockville 65-04 circuit.

Completed

5/20/2011

Reduced outage duration. A telemetric VCR and ROCS device were installed to automate the potential transfer of 750 customers at the end of the Benvenue 68-02 line.

42 Circuit ID: 13102 NORTHAMPTON 31-02

Location: Bethlehem

CPI: 637

2/17/2011: Install telemetric recloser.

Completed

3/8/2011

Reduced the number of customers that see an outage and increase sectionalizing.

4/11/2011: Circuit outage data analysis - WPC not on preceding qtr. list.

Completed

5/31/2011

The major contributor to the circuit performing index was customers experiencing more than three interruptions.

6/17/2011: Build new 69/12kV substation at the end of the 31-2 circuit.

Scheduled for

11/30/2011

43 Circuit ID: 13602 RICHLAND 36-02

Location: Bethlehem

CPI: 616

4/11/2011: Circuit outage data analysis - WPC not on preceding qtr. list.

Completed

5/31/2011

The major contributor to the circuit performing index was customers experiencing greater than three interruptions.

6/17/2011: Build tie line between 36-2 and Ridge Road 70-1.

Scheduled for

11/17/2014

44 Circuit ID: 57702 PAXTON 77-02

Location: Harrisburg

CPI: 613

1/26/2011: Thermographic inspection-OH line.

In progress

4/11/2011: Circuit outage data analysis - WPC not on preceding qtr. list.

Completed

5/25/2011

Q1 2011 is the first quarter the circuit has appeared on the WPC list. The largest CPI contributor was the percentage of customers with >3 interruptions. In the past four quarters, the circuit breaker has experienced four interruptions. Two outages were coded as nothing found during the 2/2/11 ice storm. A vehicle pole hit interrupted the breaker on 10/27/10 and a tree from outside the trimming right of way interrupted the breaker during the 6/24/10 thunder and lightning storm.

5/25/2011: Improve sectionalizing capability. Investigate installing a normally closed LBAS near the circuit's mid point. This will provide an additional sectionalizing point to improve restoration times during an outage.

Completed

7/21/2011

A location has been identified that would sectionalize the customer count in roughly half.

7/21/2011: Install ROCS. Install a normally closed remote operator controlled switch near the circuit's mid point.

Scheduled for

12/31/2011

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>
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45 Circuit ID: 23401 HONESDALE 34-01

Location: Pocono

CPI: 611

7/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.

Scheduled for 8/31/2011

46 Circuit ID: 43201 MILLVILLE 32-01

Location: Sunbury

CPI: 591

4/11/2011: Circuit outage data analysis - WPC not on preceding qtr. list.

Completed 5/31/2011

The number of customers experiencing more than 3 outages attributed to 74% of the CPI for this circuit. This circuit went into service in January 2011 and the high CPI score was inherited from the old circuit configuration.

47 Circuit ID: 41601 CLEVELAND 16-01

Location: Central

CPI: 584

2/13/2009: Expanded Operational Review. Initiated work to replace failing equipment and reconductor a portion of underground primary.

Completed 7/24/2009

Inconclusive. Monitor future performance.

7/24/2009: Perform line maintenance identified by line inspection. Replaced failing equipment.

Completed 9/18/2009

Reduced outage risk.

7/24/2009: Reconductor line. Reconductor underground primary in Knoebels.

Completed 3/24/2010

Reduced outage risk.

7/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.

Scheduled for 8/31/2011

48 Circuit ID: 10901 COOPERSBURG 09-01

Location: Bethlehem

CPI: 577

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. SP 56615 - a portion of the line will be transferred to 09-4 and a portion of the 09-2 will be transferred to the existing 09-1

Completed 5/31/2011

Increase reliability for customers in the area. The 9-4 provided another source in the area.

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>
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49 Circuit ID: 64202 KINZER 42-02

Location: Lancaster

CPI: 568

7/22/2009: Relocate inaccessible line. Relocate 3 ph inaccessible line to Dam Rd. Approximate grid numbers 47243s22904 to 46903s22491

Completed 10/14/2010 Reduced outage duration.

1/4/2010: Expanded Operational Review. Reliability Analysis Completed 9/8/10

Completed 12/31/2010 Reduced outage duration. No Reliability W.R. needed

1/14/2011: Circuit outage data analysis - WPC not on preceding qtr. list.

Completed 2/18/2011 Two of the four significant outages experienced were transmission related (CB failure at Wakefield interrupted the Kinzer 13 circuit and switching error performing AB Maint.)

1/17/2011: Line inspection-equipment. Perform line inspection on 2 and 3 phase line sections - 16.3 miles

Completed 7/12/2011 Reduced outage risk.

1/17/2011: Perform line maintenance identified by line inspection. Perform line inspection on 2 and 3 phase line sections - 16.3 miles

Completed 3/31/2011 Reduced outage risk.

7/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.

Completed 7/12/2011 This circuit experienced a circuit breaker outage due to a vehicle hitting a pole. The total customers interrupted was double the normal, total customers due to the transfer of the ATGL 2-1 line under job W-1326. Other contributors were equipment failures and trees, not trimming related. This circuit is scheduled for tree trimming in 2012.

50 Circuit ID: 46302 ROHRSBURG 63-02

Location: Sunbury

CPI: 566

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 8/31/2011 Reduced customer count affected by each outage.

3/13/2008: Relocate inaccessible line. Relocate inaccessible taps from fuse 37423N35271 (Savage Hill Rd).

Scheduled for 4/1/2012

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.

Completed 11/11/2010 The Rohrsburg 63-02 circuit was reviewed at Susquehanna Region's Q3 2010 WPC meeting on November 11, 2010. This circuit is classified as a worst-performer due to the number of customers experiencing multiple outages. The major contributors to these outages have been storm-related outages, and a transmission outage affecting the entire substation. This circuit has been the focus of reliability improvements for several months, as documented elsewhere in this database.

7/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.

Scheduled for 8/31/2011

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>
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51 Circuit ID: 47703 BLOOMSBURG 77-03

Location: Sunbury

CPI: 564

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.	Scheduled for	11/30/2014	
10/11/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	11/11/2010	The Bloomsburg 77-03 circuit was reviewed at Susquehanna Region's Q3 2010 WPC meeting on November 11, 2010. This circuit is classified as a worst-performer due to the number of customers experiencing multiple outages. Over the last 4 quarters, the substation breaker was interrupted three times, twice due to off-right-of-way trees contacting the line. This line will be inspected for vegetation encroachment and potential equipment failure risks. Based on the performance of this line in the last 2 quarters, this circuit will likely remain a WPC for 2 - 3 more quarters.
11/11/2010: Line inspection-equipment.	Completed	5/2/2011	Reduced outage risk. The line inspection revealed the following problems: 2 Blown Lightning Arrestors, Broken Strands on the Primary, 1 Broken Wire Tie, Broken Insulators and Broken Guy Wires.

52 Circuit ID: 64701 LITITZ 47-01

Location: Lancaster East

CPI: 564

10/11/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	11/5/2010	Inconclusive. Monitor future performance.
1/6/2011: Expanded Operational Review.	Scheduled for	12/30/2011	
1/13/2011: Thermographic inspection-OH line.	Completed	5/2/2011	Reduced outage risk.
1/13/2011: Line inspection-equipment.	Completed	3/10/2011	Reduced outage risk. As a result of the line inspection, 4 work requests were initiated to make repairs which should minimize future outage risks.

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>
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53 Circuit ID: 46701 RENOVO 67-01

Location: Susquehanna

CPI: 563

12/18/2008: Expanded Operational Review.	Completed	12/31/2009	Reduced outage risk. Identified locations for additional fusing and 1 animal guard.
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 burred 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: 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.
1/6/2010: Install fuse(s).	Completed	1/20/2010	Reduced customer count affected by each outage.
1/6/2010: Install animal guard(s).	Completed	1/20/2010	Reduced outage risk.
7/6/2010: Install fuse(s).	Completed	1/7/2010	Reduced customer count affected by each outage.
11/3/2010: Relocate inaccessible line. Westport Tap Part 2. Rebuild approx 1.3 miles with 1/0 ACSR XLP and static wire. Portions may only need XLP and no static wire. Other portions can be relocated from one side of SR 120 to other side, away from steep bank.	Scheduled for	12/31/2011	
11/3/2010: Relocate inaccessible line. Westport Tap Part 1. Rebuild approx 2.0 miles with 1/0 ACSR XLP and static wire. Portions may only need XLP and no static wire. Other portions can be relocated from one side of SR 120 to other side, away from steep bank.	Scheduled for	12/31/2011	

<i>Rank</i>	<i>Action</i>	<i>Status</i>	<i>Due/Complete</i>	<i>Result</i>	
54	Circuit ID: 25801 SULLIVAN TRAIL 58-01			Location: Wilkes-Barre	CPI: 545
	1/1/2008: Expanded Operational Review.	In progress	12/31/2008		
	4/22/2008: Perform line maintenance identified by line inspection. WR 445884 to perform minor maintenance identified by line patrol.	Completed	9/1/2009	Reduced outage risk.	
	4/22/2008: Perform line maintenance identified by line inspection. WR 445956 to replace a degraded transformer identified by line patrol.	Completed	8/31/2009	Reduced outage risk.	
	10/7/2009: Install animal guard(s). WR 539607 to install animal guard at various locations.	Completed	11/20/2009	Reduced outage risk.	
	7/2/2010: Expanded Operational Review. Wilkes-Barre section of line. Voltage profile complete 6/4/2010. Field review to complete 6/24/2010.	Completed	6/24/2010	Inconclusive. Monitor future performance.	
	9/27/2010: Line inspection-equipment. Generated WR 607838 to repair degraded conditions found during field review - transformer cutouts, missing animal guard, degraded crossarms, etc.	Completed	12/8/2010	Reduced outage risk.	
	7/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	8/31/2011		
55	Circuit ID: 26001 WEST DAMASCUS 60-01			Location: Pocono	CPI: 529
	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	10/29/2010	Beavers caused trees to bring down wires. Hazard trees have been removed.	
	10/21/2010: Improve sectionalizing capability.	Scheduled for	7/31/2011		
56	Circuit ID: 20402 ASHFIELD 04-02			Location: Central	CPI: 526
	7/20/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	8/31/2011		
57	Circuit ID: 11506 FREEMANSBURG 15-06			Location: Bethlehem	CPI: 523
	7/20/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	8/31/2011		

- 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 (Equipment Failures, Trees–Not Trimming Related, 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 ⁶	Percent of Trouble Cases	Customer Interruptions ⁷	Percent of Customer Interruptions	Customer Minutes	Percent of Customer Minutes
Animals	3,965	19.63%	53,380	3.38%	5,110,461	2.48%
Contact/Dig-In	148	0.73%	9,689	0.61%	671,716	0.33%
Directed by Non-PPL Authority	189	0.94%	8,172	0.52%	555,633	0.27%
Equipment Failures	6,019	29.80%	527,393	33.39%	59,559,021	28.90%
Improper Design	0	0.00%	0	0.00%	0	0.00%
Improper Installation	4	0.02%	2,074	0.13%	362,675	0.18%
Improper Operation	27	0.13%	41,822	2.65%	1,108,437	0.54%
Non PPL Problem-Cust Fac	113	0.56%	1,866	0.12%	207,593	0.10%
Non PPL Problem-Other	179	0.89%	14,450	0.91%	1,267,433	0.62%
Nothing Found	1,637	8.11%	134,816	8.54%	9,486,898	4.60%
Other-Controllable	118	0.58%	13,382	0.85%	675,731	0.33%
Other-Non Control	482	2.39%	33,345	2.11%	3,487,095	1.69%
Other-Public	87	0.43%	31,525	2.00%	2,246,793	1.09%
Trees-Not Trimming Related	5,593	27.69%	509,570	32.26%	95,390,804	46.29%
Trees-Trimming Related	905	4.48%	64,095	4.06%	13,356,606	6.48%
Vehicles	729	3.61%	133,960	8.48%	12,589,689	6.11%
Total	20,195	100.00%	1,579,539	100.00%	206,076,584	100.00%

⁶ Cases of trouble are the number of sustained customer service interruptions (i.e., service outages).

⁷ 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 the northern portion of its service area and four years for all circuits in the southern portion of its service area. 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 20% 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 82% 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 focus systematically 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 47% of the cases of trouble, 50% of the customer interruptions and 58% 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	2nd Quarter		Year-to-date	
		Budget	Actual	Budget	Actual
Transmission					
Transmission C-tag poles (# of poles)	400	139	86	268	246
Transmission arm replacements (# of sets)	100	21	24	43	58
Transmission air break switch inspections (# of switches)	0	0	1	0	2
Transmission lightning arrester installations (# of sets)	38	13	15	37	28
Transmission pole inspections (# of poles)	5,200	2,600	2,526	5,200	5,363
Transmission tree side trim-Bulk Power (linear feet)	N/A				
Transmission herbicide-Bulk Power (# of acres)	N/A				
Transmission re-clearing (# of miles) BES Only	503	167.08	149.22	310	353
Transmission re-clearing (# of miles) 69/138 kV	863	161.78	158	161.78	158
Transmission danger tree removals-Bulk Power (# of trees)	N/A				
Substation					
Substation batteries (# of activities)	844	174	77	750	710
Circuit breakers (# of activities)	1270	378	70	720	334
Substation inspections (# of activities)	2637	662	198	1,377	1,013
Transformer maintenance (# of activities)	2190	637	136	1,268	755
Distribution					
Distribution C-tag poles replaced (# of poles)	1,600	469	447	856	934
C-truss distribution poles (# of poles)	5,500	1,823	2,257	1,823	2,778
Capacitor (MVAR added)	57	24	32	36	52
OCR replacements (# of)	644	214	152	478	414
Distribution pole inspections (# of poles)	130,000	43,107	62,037	57,558	84,460
Distribution line inspections (# of miles)	3,000	1,014	554	2,014	1,254
Group re-lamping (# of lamps)	16,000	3,099	2,074	5,599	2,324
Test sections of underground distribution cable	500	163	245	255	353
Distribution tree trimming (# of miles)	5,5,139	1,407	774	2,583	2,448
Distribution herbicide (# of acres)	N/A				
Distribution >18" removals within R/W (# of trees)	N/A				
Distribution hazard tree removals outside R/W (# of trees)	N/A				
LTN manhole inspections (# of)	423	153	0	298	121
LTN vault inspections (# of)	758	213	13	414	170
LTN network protector overhauls (# of)	101	31	0	48	11
LTN reverse power trip testing (# of)	119	35	0	55	18

- 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	2nd Quarter		Year-to-date	
	Budget (\$000)	Actual (\$000)	Budget (\$000)	Actual (\$000)
Provide Electric Service	2,464	2,207	4,769	4,433
Vegetation Management	7,209	7,522	14,289	15,181
Customer Response	16,556	16,380	31,219	31,690
Reliability & Maintenance	15,044	9,516	28,607	22,440
System Upgrade	1,337	202	2,137	512
Customer Services/Accounts	29,883	24,794	58,559	48,019
Others	12,398	15,802	24,245	35,538
Total O&M Expenses	84,891	76,423	163,825	157,813

- 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.

	2nd Quarter		Year-to-date	
	Budget (\$000)	Actual (\$000)	Budget (\$000)	Actual (\$000)
New Service/Revenue	12,688	14,855	26,701	29,567
System Upgrade	37,183	33,244	66,060	61,630
Reliability & Maintenance	47,878	48,328	83,818	97,547
Customer Response	5,137	7,209	9,983	14,122
Other	3,406	2,997	7,092	6,113
Total	106,292	106,632	193,655	208,981

- 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.

Transmission and Distribution (T&D)	
Lineman Leader	75
Journeyman Lineman	204
Journeyman Lineman-Trainee	87
Helper	44
Groundhand	5
Troubleman	56
T&D Total	471
Electrical	
Elect Leaders-UG	6
Elect Leaders-Net	10
Elect Leaders-Sub	23
Journeyman Elect-UG	29
Journeyman Elect-Net	11
Journeyman Elect-Sub	49
Journeyman Elect Trainee-UG	3
Journeyman Elect Trainee-Net	9
Journeyman Elect Trainee	32
Helper	21
Laborer-Network	0
Laborer-Substation	0
Electrical Total	193
Overall Total	664

***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%

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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.

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Service Interruption Definitions

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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">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)
11 – Improper Installation	Controllable	<ul style="list-style-type: none">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)
12 – Improper Operation	Controllable	<ul style="list-style-type: none">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)
30 – Trees – Trimming Related ⁸	Controllable	<ul style="list-style-type: none">Outages resulting from conductors contacted by tree growth within the clearance zone defined by the current trimming specification (within the Rights-of-Way).
35 – Trees – Not Trimming Related	Non-Controllable	<ul style="list-style-type: none">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.
40 – Animals	Controllable	<ul style="list-style-type: none">Any outage caused by an animal directly or indirectly coming in contact with PPL Electric facilities. This includes birds, squirrels, raccoons, snakes, cows, etc.
41 – Vehicles	Public	<ul style="list-style-type: none">When cars, trucks or other types of vehicles or their cargoes strike facilities causing a problem.

⁸ The title and description of this code have been revised for clarity. The purpose and application of the code have not changed.

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51 – Contact/Dig-in	Public	<ul style="list-style-type: none"> • 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.). • When contact is made by a non-employee with an underground facility causing interruption.
60 – Equipment Failure	Controllable	<ul style="list-style-type: none"> • Outages resulting from equipment failures caused by corrosion or contamination from build-up of materials, such as cement dust or other pollutants. • Outages resulting from a component wearing out due to age or exposure, including fuse tearing or breaking. • Outages resulting from a component or substance comprising a piece of equipment failing to perform its intended function. • 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.
77 – Non-PPL Problem – Other	Non-PPL	<ul style="list-style-type: none"> • Where no PPL Electric or customer facilities were affected, and no repair or restoration was carried out on PPL Electric equipment.
78 – Non-PPL Problem – Customer Facility	Non-PPL	<ul style="list-style-type: none"> • Where no PPL Electric facilities were affected, and no repair or restoration was carried out on PPL Electric equipment.
80 – Scheduled Outage ⁹	Controllable	<ul style="list-style-type: none"> • 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. • Includes requests from customers for interruption of PPL Electric facilities.

⁹ 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.

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85 – Directed by Non-PPL Authority	Non-Controllable	<ul style="list-style-type: none"> • 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. • 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.
90 – Other – Controllable (Lineman provides explanation)	Controllable	<ul style="list-style-type: none"> • 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. • Interruptions resulting from excessive load that cause that facility to fail. • 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. • Controllable interruptions or Power Service Problems whose cause is not described by one of the previous controllable cause codes.
96 – Nothing Found	Non-Controllable	<ul style="list-style-type: none"> • When no cause for the interruption can be found. • 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. • When closed for test, the fuse holds or the OCR remains closed. A patrol of the tap reveals nothing.
98 – Other Public (Lineman provides explanation)	Public	<ul style="list-style-type: none"> • 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.

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<p>99 – Other – Non-Controllable (Lineman provides explanation)</p>	<p>Non-Controllable</p>	<ul style="list-style-type: none">• 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.• 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.• All problems caused by contact of energized equipment with facilities of other attached companies or by trouble on customer owned equipment.• 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.
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Appendix C

PPL Electric Utilities Corporation
Job Descriptions

Transmission and Distribution

Groundhand	<ul style="list-style-type: none">• Performs manual labor and assists employees in higher job classifications.
Helper	<ul style="list-style-type: none">• 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.
Journeyman Lineman	<ul style="list-style-type: none">• 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.
Journeyman Lineman-Trainee	<ul style="list-style-type: none">• 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.
Lineman Leader	<ul style="list-style-type: none">• 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.• Engage in and perform work along with providing the necessary leadership, all-around knowledge, initiative, judgment, and experience to produce a quality job.• Performs all the direct duties of the Journeyman Lineman when not acting as a Lineman Leader.
Troubleman	<ul style="list-style-type: none">• Investigates and resolves trouble calls, voltage abnormalities on transmission and distribution systems associated with, but not limited to, PPL Electric facilities.

Electrical

<p>Electrician Leader - Substation - Network - Underground</p>	<ul style="list-style-type: none"> • 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. • Engage in and perform work along with providing the necessary leadership, all-around knowledge, initiative, judgment, and experience to produce a quality job. • Performs all direct duties of the Journeyman Electrician when not acting as a leader.
<p>Helper - Substation - Network - Underground</p>	<ul style="list-style-type: none"> • 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.
<p>Laborer - Substation - Network - Underground</p>	<ul style="list-style-type: none"> • Performs manual labor and assists employees in higher job classifications.
<p>Journeyman Electrician - Substation - Network - Underground</p>	<ul style="list-style-type: none"> • 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. • Uses microprocessor based equipment for troubleshooting and revising relay logic and its control systems related to the Field Services electrical discipline.
<p>Journeyman Electrician - Trainee - Substation - Network - Underground</p>	<ul style="list-style-type: none"> • 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. • Uses microprocessor based equipment for troubleshooting and revising relay logic and its control systems related to the Field Services electrical discipline.

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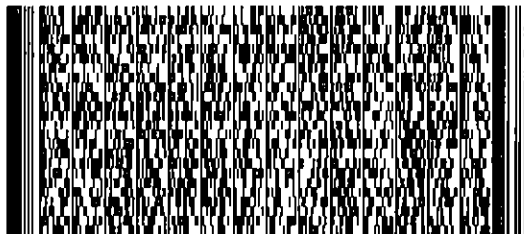
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