Paul E. Russell
Associate General Counsel

PPL
Two North Ninth Street
Allentown, PA 18101-1179
Tel. 610.774.4254 Fax 610.774.6726
perussell@pplweb.com

FEDERAL EXPRESS

January 30. 2012

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

Re: PPL Electric Utilities Corporation
Quarterly Reliability Report for the
Period Ended December 31, 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 December 31, 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 January 30, 2012, which is the date it was deposited with an overnight express delivery service as shown on the delivery receipt attached to the mailing envelope.

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

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

Very truly yours,

Paul E. Russell

Enclosures

cc: Mr. Darren Gill
Mr. Daniel Searfoorce

PPL Electric Utilities

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

January 2012

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.***

Halloween Snowstorm

During the morning of Saturday, October 29, 2011, PPL Electric Utilities Corporation's ("PPL Electric") 29-county service area began to feel the effects of an unusual fall nor'easter. Heavy, wet snow began falling on Saturday, October 29, 2011, and continued until the early evening. In the southern portions of the PPL Electric service area, snowfall of up to 13 inches was reported by the National Weather Service. The heavy, wet snow accumulated on trees and their leaves, resulting in significant vegetation damage. Large trees and branches from outside PPL Electric's rights-of-way made contact with transmission and distribution facilities resulting in many downed conductors. Restoration efforts were often hampered by the need for tree removal.

PPL Electric's entire service territory experienced sustained customer service interruptions. The territory experienced a total of 2,882 cases of trouble resulting in 388,318 customer service interruptions. The first case of trouble was reported on October 29, 2011, at approximately 10:00 AM. A total of 226,945 customers experienced a service interruption lasting longer than six hours; 176,652 customers were without service for more than 12 hours; 131,493 customers were without service for 24 hours or longer. The last customers were returned to service at 12:10 PM on November 5, 2011. This event is the third most damaging storm event to impact the PPL Electric service territory since 1991

As a result of this year's storm activities, 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.

Additionally, several Outage Management System (OMS) enhancements are either completed or in progress. The below enhancements will help ensure more accurate outage data and more efficient processing of outage data during large storm events:

- OMS hardware and the OMS database version were upgraded to enhance processing and memory.
- Large-scale storm Estimated Restoration Time (ERT) enhancements were completed.
- The OMS database was tuned to speed up overall processing and user interface.
- Two OMS system patches were tested and adopted to resolve OMS model corruption issues. Patches are ongoing.

PPL Electric has several communication improvement initiatives either completed or in progress to increase the effectiveness of the IVR system. The improvements include:

- Modifications to the outage reporting path in the IVR system were completed to increase call handling capability.
- The capability to "suppress" (not provide) ERTs at the beginning of major storm outage events was completed. This will accomplish two objectives. First, customers will not receive ERTs during in the initial stages of large storm outage events when there is a very low degree of accuracy. Second, this capability will significantly reduce the processing burden on OMS and will allow the system to more efficiently perform its basic functions of outage reporting and analysis.
- High-volume outbound calling capability was instituted to provide service outage update messages to those customers who report their service outage via the IVR system. This capability will be of particular value to those calling while the ERT is suppressed.
- Capacity from a high-volume IVR firm is being leased which will reduce the probability of a customer receiving a busy signal.
- 92 additional AT&T lines were installed, bringing the total to 506 lines, to maximize current telephony platform capacity.
- An initiative has been launched to improve ERT accuracy by developing an enhanced damage assessment process that will enable the Company to more quickly obtain and more accurately interpret damage assessment data.
- Efforts are underway to expand PPL Electric's self-service offerings to include smart telephone applications for both service outage reporting and ERT communications to further reduce in-bound telephone calls. PPL Electric expects to have this in place early 2012.

Finally, PPL Electric began an extensive benchmarking effort with visits to PEPCO Holdings and Entergy. From these visits, PPL Electric has determined that it will be implementing a communication initiative to hold regularly scheduled daily conference calls with elected officials during major storm outage events to keep those officials up-to-date with the status of restoration activities, provide them with an opportunity for questions and to seek their assistance as necessary. Future visits with QVC, Vanguard, and DTE are planned.

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 December 31, 2011[1].

SAIFI (Benchmark = 0.98; Rolling 12-month Std. = 1.18)	1.071
CAIDI (Benchmark = 145; Rolling 12-month Std. = 174)	151
SAIDI (Benchmark = 142; Rolling 12-month Std. = 205)	162
MAIFI[2]	5.033
Average Number of Customers Served[3]	1,389,884
Number of Sustained Customer Interruptions (Trouble Cases)	18,412
Number of Customers Affected[4]	1,489,077
Customer Minutes of Interruptions	225,087,898
Number of Customer Momentary Interruptions	6,994,762

During the 4th quarter, there was one (1) PUC major event, and two (2) other storms that required the opening of one or more area emergency centers to manage restoration efforts.

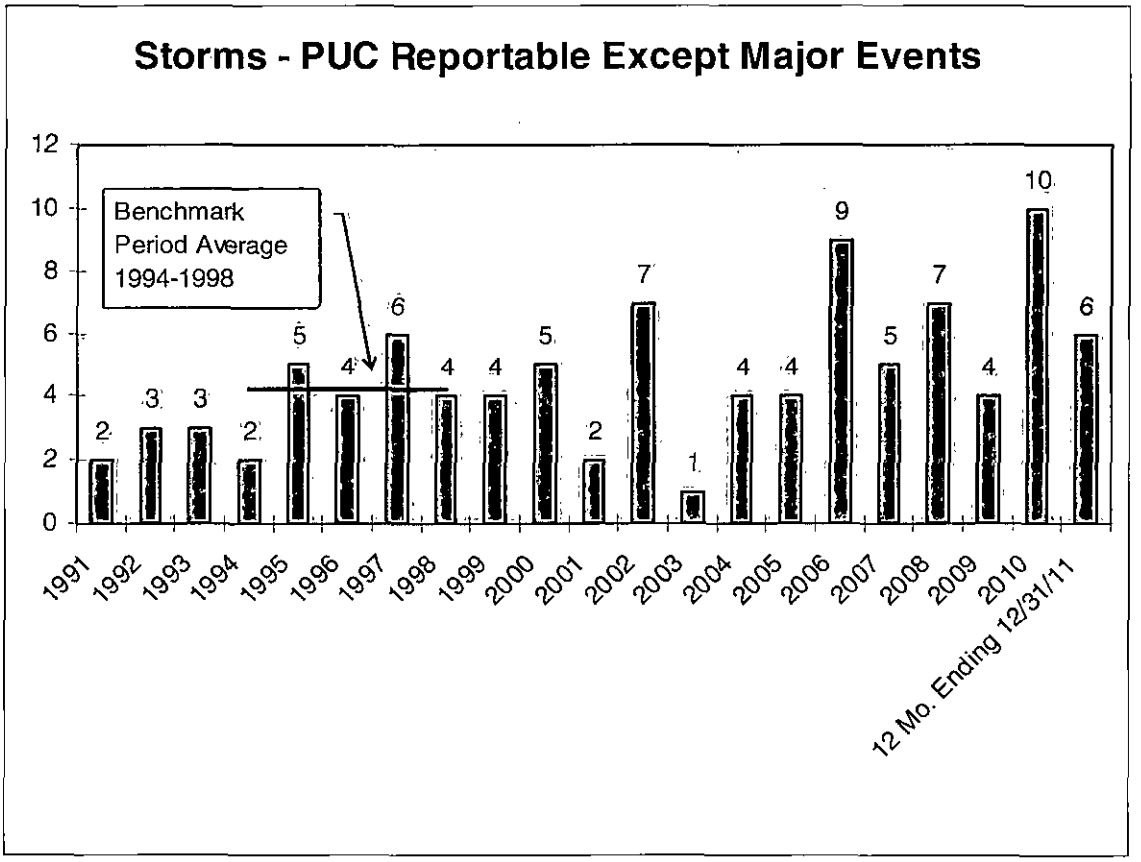
[1] Non-PPL Electric problems are excluded here, but may be found in Item 5.

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

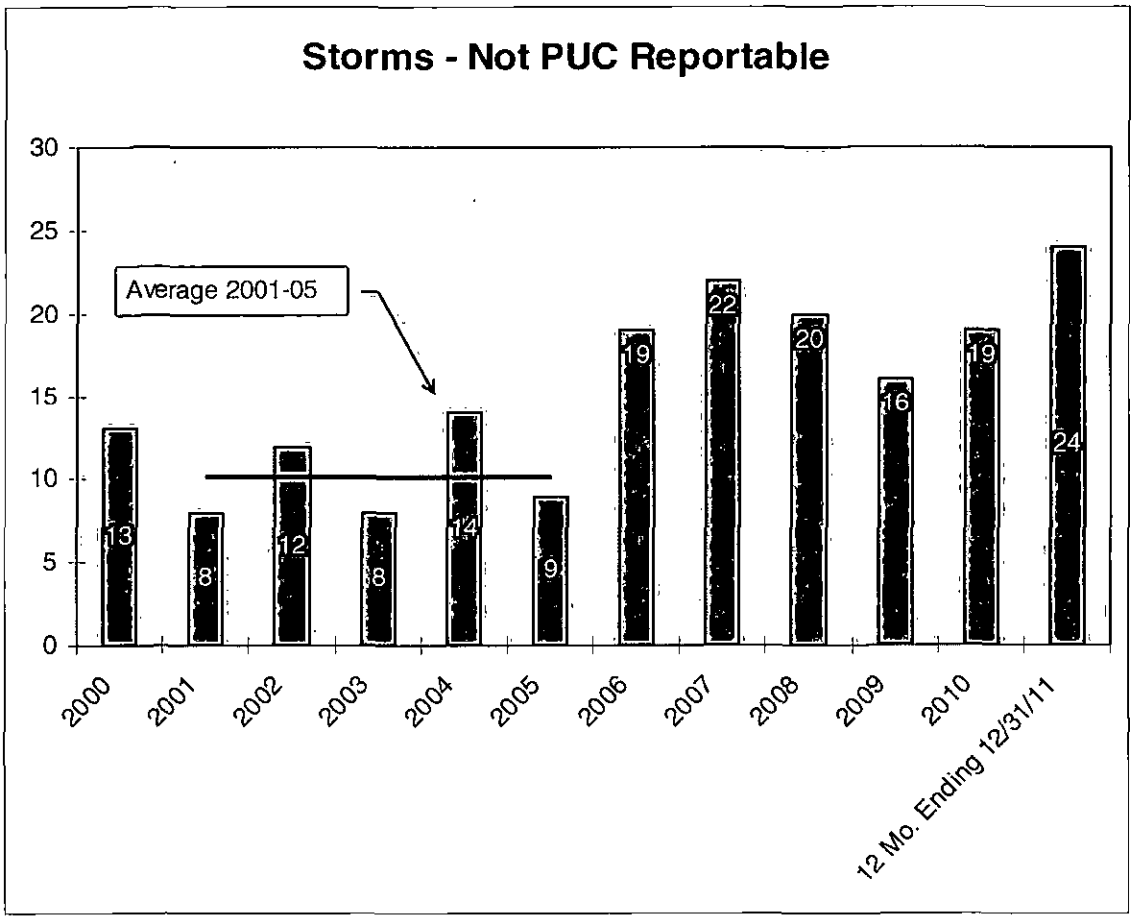
[3] PPL Electric calculates the annual indices using customers served at the end of the period. This is consistent with the method used to calculate PPL Electric's benchmarks.

[4] 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.

Specifically, during the 12-month reporting period, there were three (3) PUC major events and six (6) PUC-reportable storms (≥ 2,500 customers interrupted for ≥ 6 hours) other than major events.



In addition, there were twenty-four (24) storms that were not reportable, but which did require the opening of one or more area emergency centers to manage restoration efforts.



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[5]	Customers	Cases of Trouble[6]	Customer Minutes Interrupted	CPI
1	41201	7.983	554.89	4,429.7	19.00	59	4	261,354	1693
2	44703	5.543	313.68	1,738.6	2.00	1756	31	3,053,107	1288
3	47707	1.637	2154.0	3,526.6	6.30	1916	57	6,757,099	1237
4	43401	3.607	691.93	2,495.5	1.01	989	52	2,468,129	1216
5	26601	5.501	233.33	1,283.5	4.07	1294	40	1,660,893	1192
6	47701	1.404	2358.3	3,311.2	5.11	495	3	1,639,062	1165
7	47501	5.838	379.86	2,217.8	1.00	767	25	1,701,053	1161
8	47703	2.969	912.59	2,709.7	11.10	1365	38	3,698,740	1116
9	52401	5.439	167.22	909.56	2.04	1435	73	1,305,222	1080
10	52402	6.466	159.41	1,030.8	4.68	1649	85	1,699,833	1067
11	23401	6.370	158.30	1,008.4	3.05	1740	49	1,754,670	1009
12	41601	4.861	303.57	1,475.6	7.24	410	19	605,025	1008
13	54701	6.461	108.46	700.80	8.21	1860	62	1,303,496	952
14	10803	8.355	207.62	1,734.6	13.76	62	6	107,549	950
15	47704	4.641	483.67	2,244.8	8.91	733	29	1,645,472	921
16	13704	6.983	152.00	1,061.4	5.99	1576	42	1,672,767	910
17	44802	1.217	2019.2	2,458.0	1.29	1436	18	3,529,709	909
18	24401	5.091	122.69	624.57	22.24	1238	52	773,215	883
19	52403	4.744	138.50	657.10	8.04	1157	42	760,269	864
20	12305	5.647	131.85	744.60	8.03	884	41	658,229	862
21	57403	7.207	50.513	364.06	13.09	1467	31	534,074	850
22	12302	5.195	119.53	621.02	0.00	1532	22	951,395	829
23	13302	6.097	78.703	479.81	7.07	1409	15	676,059	820
24	44701	2.601	588.68	1,530.9	6.99	1069	43	1,636,546	820
25	11001	6.389	142.13	908.04	4.00	867	42	787,274	795
26	56802	4.518	134.97	609.86	9.58	1403	50	855,630	777
27	11502	4.994	69.272	345.91	3.02	2465	31	852,677	750
28	15603	5.154	59.687	307.61	20.19	1067	23	328,222	748

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

[6] Cases of trouble are the number of sustained customer service interruptions.

WPC Rank	Feeder ID	SAIFI	CAIDI	SAIDI	MAIFI[5]	Customers	Cases of Trouble[6]	Customer Minutes Interrupted	CPI
29	12701	2.777	335.79	932.38	4.01	1518	48	1,415,360	730
30	51002	1.855	1021.4	1,894.9	5.98	1698	17	3,217,659	721
31	15601	4.980	67.565	336.45	6.00	836	30	281,273	708
32	43202	3.251	185.97	604.68	0.00	1154	56	697,795	705
33	22602	4.394	132.18	580.77	6.02	1535	57	891,485	691
34	28102	3.754	179.61	674.33	1.04	1714	67	1,155,805	688
35	46602	4.467	98.246	438.90	2.00	1547	64	678,980	648
36	25402	3.497	138.27	483.48	16.10	1726	42	834,479	646
37	15602	3.552	115.87	411.59	8.99	1190	17	489,788	643
38	22402	4.602	133.18	612.95	9.05	1297	20	794,999	642
39	43201	2.616	149.01	389.76	0.00	960	18	374,170	637
40	53601	4.086	113.06	461.99	9.29	1129	54	521,583	626
41	64101	0.001	76.65	0.05	0.00	1639	1	77	619
42	12301	3.301	221.27	730.36	2.02	1234	43	901,258	618
43	44601	3.732	153.62	573.26	1.00	764	29	437,973	599
44	47502	2.432	387.81	943.11	1.18	792	25	746,940	583
45	43302	2.509	472.62	1,185.5	6.90	177	4	209,844	576
46	51003	2.667	408.93	1,090.5	2.00	1699	17	1,852,905	575
47	11506	3.643	152.60	555.97	4.97	1309	47	727,763	575
48	45002	3.202	185.86	595.03	1.00	1916	52	1,140,073	573
49	59202	3.161	163.55	516.96	2.01	2270	93	1,173,494	571
50	22001	2.986	252.94	755.19	0.00	2283	70	1,724,101	550
51	57006	3.145	227.95	716.98	8.97	1370	14	982,264	534
52	22802	2.023	521.44	1,054.9	4.99	563	12	593,928	524
53	17902	3.838	52.911	203.07	12.10	987	29	200,430	522
54	55401	3.157	90.269	284.97	1.04	2174	15	619,522	521
55	46206	3.298	247.95	817.84	12.00	1760	48	1,439,393	512
56	41002	2.978	171.43	510.60	0.10	1252	34	639,277	477
57	40201	3.149	148.32	467.03	3.03	1628	61	760,320	468

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 whether there are causal patterns or geographic patterns for which corrective actions are feasible that would improve the circuit's CPI.

PPL Electric is currently evaluating improvements to their Worst Performing Circuit program.

(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: 41201 KENMAR 12-01**			**Location: Susquehanna** **CPI: 1693**
	7/6/2010: Thermographic inspection-OH line.	Completed	3/31/2010	No problems were found. PPL will continue to monitor this circuit's future performance.
	10/18/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	12/1/2011	This circuit was reviewed at the Susquehanna WPC meeting on 12/1/11. On January 5, 2011 a vehicle hit took down conductors and System Operations opened the circuit breaker to de-energize the downed conductors until loops could be cut to isolate the outage. This circuit was never on the WPC list before. PPL will continue to monitor this circuit's performance.
2	**Circuit ID: 44703 MUNCY 47-03**			**Location: Susquehanna** **CPI: 1288**
	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 contributed 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.
	10/17/2011: Relocate inaccessible line. Relocate a 0.8 mile section of the main feeder that currently runs through an area prone to flooding. The proposed relocation circumvents the flood prone area, eliminates two underground dips, and provides a more direct feed to the Muncy Hospital and 1700 customers in Muncy Borough.	Scheduled for	11/29/2013	

Rank	Action	Status	Due/Complete	Result
3	**Circuit ID: 47707 BLOOMSBURG 77-07**			**Location: Sunbury** **CPI: 1237**
	3/12/2008: Install tie. Construct Tie between East Danville #2 and Bloomsburg #7 along Rte 11. This project is currently being engineered.	Scheduled for	9/28/2012	
	2/5/2009: Improve sectionalizing capability. Install solid blade disconnects to improve sectionalizing on Grovania Hill Tap (OCR 33751N29561).	Completed	5/27/2010	Reduced customer count affected by each outage.
	4/14/2009: Install 1 phase OCR(s). Install OCR at 35049N27955, Long Woods Rd and Orchard Rd. (WR 503377).	Completed	5/28/2010	Reduced customer count affected by each outage.
	4/14/2009: Reconductor line. Replace conduit and river crossing on SR 42 Bridge to Catawissa.	Completed	5/14/2011	Reduced customer count affected by each outage.
	4/14/2009: Install fuse(s). Install series fusing - Hollow Rd. (WR# 504489)	Completed	7/16/2010	Reduced customer count affected by each outage.
	4/14/2009: Install fuse(s). Install series fusing on River Drive (WR# 504490).	Completed	7/16/2010	Reduced customer count affected by each outage.
	1/14/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	2/18/2011	Greater than 3 outages was 42% of the CPI score. The largest outage affected all of the customers on the feeder and was caused by a tree falling on the lines just outside of the substation. This incident was storm related not due to lack of trimming. The third largest outage was an intentional outage due to a fire. PPL was asked by local officials to de-energize the line.
4	**Circuit ID: 43401 BENTON 34-01**			**Location: Sunbury** **CPI: 1216**
	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. 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.

Rank	*Action*	*Status*	*Due/Complete*	*Result*
5	**Circuit ID: 26601 BROOKSIDE 66-01**			**Location: Scranton** **CPI: 1192**
	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.	Completed	8/31/2011	The Brookside 66-1 12 kV line experienced several large outages that put it into the top ten WPC list. The first of the major outages occured on 4/30/11 when a tree from outside PPL's right of way fell on the primary line and caused the breaker at the sub to trip to lockout. The outage affected 1,292 customers and resulted in a total customer minutes iterrupted (CMI) value of 931,765. Another non trimming related outage occured on 5/24/11 resulting in an OCR tripping to lockout causing an outage for 870 customers with a CMI value of 72,323.
6	**Circuit ID: 47701 BLOOMSBURG 77-01**			**Location: Sunbury** **CPI: 1165**
	10/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	12/1/2011	This circuit was reviewed at the Susquehanna WPC meeting on 12/1/11. The Bloomsburg substation and customers served by this circuit were subjected to historical flood conditions. The flooding was caused by record setting rainfalls from Tropical Storm Lee. Efforts to restore service were hindered since some of PPL's equipment was inaccessible due to flooding and some of our customer's services were under water. This circuit has not on the WPC list before. PPL will continue to monitor this circuit's performance.
7	**Circuit ID: 47501 NEW COLUMBIA 75-01**			**Location: Sunbury** **CPI: 1161**
	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.	Completed	9/19/2011	This circuit was reviewed at the Susquehanna WPC meeting on 9/19/11. The largest contributor to the circuit performance index was a SAIDI contribution of 64.25%. On April 28, 2011 a microburst took down several spans of three phase circuit which caused the circuit breaker to open. Due to the extensive damage all of the customers on this line were out of service for 2,077 minutes. PPL will continue to monitor this circuit's future performance.

Rank	Action	Status	Due/Complete	Result
8	**Circuit ID: 47703 BLOOMSBURG 77-03**		**Location: Sunbury**	**CPI: 1116**
	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 interupting and switching devices.	Scheduled for	11/30/2014	
	10/11/2010: Circuit outage data analysis - WPC not on preceding qtr. list. This line will be inspected for vegetation encroachment and potential equipment failure risks.	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. 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.

Rank	Action	Status	Due/Complete	Result
9	**Circuit ID: 52401 GREEN PARK 24-01**			**Location: West Shore** **CPI: 1080**
	9/10/2010: Evaluate potential ties. Evaluate project to create a tie with the Green Park 24-03 line.	Completed	9/10/2010	Inconclusive. Monitor future performance. Extensive tree removal was completed on this circuit. It is no longer on the WPC list. Project will be documented and reevaluated should circuit performance degrade.
	1/26/2011: Expanded Operational Review.	Completed	3/15/2011	Inconclusive. Monitor future performance.
	4/11/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	5/25/2011	The Green Park 24-01 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.	Completed	10/17/2011	A project to construct a 4.5 mile three phase tie between the Green Park 24-1 and Green Park 24-3 has been developed and submitted into the five year USF capital budget.
	8/24/2011: Investigate protection scheme. Review protection device placement and determine optimum locations for three phase reclosers.	Completed	11/8/2011	Inconclusive. Monitor future performance. Field Services conducted a patrol of the Green Park 24-1 line to review three phase protection device location. Tree exposure as well as customer count distributions limit the number of alternative device locations. It was determined that there would be no net benefit in relocating any three phase devices at this time.
	8/24/2011: Repair the failed circuit breaker on the Juniata-Shermansdale 69kV line. This line serves approximately 7,500 customers at Benvenue, Green Park, New Bloomfield, Shermansdale, and South Shermansdale substations.	Completed	8/24/2011	Reduced outage risk.
	11/21/2011: Install tie. Construct a new 4.5 mile three phase tie between the Green Park 24-1 and Green Park 24-3 circuits. This project will create an automated tie for approximately 1,650 radial customers between the two circuits.	Scheduled for	11/30/2014	

Rank	Action	Status	Due/Complete	Result
10 Circuit ID: 52402 GREEN PARK 24-02			**Location: West Shore**	**CPI: 1067**
	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 greater than 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: 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	6/30/2012	
	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: 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	
	5/25/2011: Install fuse(s). Install additional fusing on a CEMI tap to reduce the exposure seen by customers.	Completed	1/6/2012	Reduced outage risk.
	8/24/2011: Repair the failed circuit breaker on the Juniata-Shermansdale 69kV line. This line serves approximately 7,500 customers at Benvenue, Green Park, New Bloomfield, Shermansdale, and South Shermansdale substations.	Completed	8/24/2011	Reduced outage risk.
11 Circuit ID: 23401 HONESDALE 34-01			**Location: Pocono**	**CPI: 1009**
	7/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	10/18/2011	Several outages occured over the rolling four quarters as a result of non trimming related tree contacts. Of these outages, the three that accounted for the largest CMI values occcured in the past four months. On 6/9/11, a tree from outside the right of way contacted the primary wire and caused an outage for 1,805 customers and netted a CMI value of 596,296. Then on 7/29/11, a tree from outside the right of way caused an OCR to trip to lockout. This caused an outage for for 751 PPL customers and resulted in a 431,575 CMI value. On 9/5/11 the same OCR tripped to lockout due to a tree falling on the primary line from outside the right of way. This caused an outage for 751 PPL customers and totaled to a CMI value of 166,122.
	10/17/2011: Evaluate potential ties.	In progress	6/29/2012	PPL is inspecting the capability of the tie line that connects the HONE 34-1 line to the TINK 44-1 line. If the tie line is nearing its capability to transfer in the next few years or reliability could be improved in any way, it is imperative that a project is planned to improve the reliability for the customers on these circuits.

Rank	*Action*	*Status*	*Due/Complete*	*Result*
12	**Circuit ID: 41601 CLEVELAND 16-01**			**Location: Central** **CPI: 1008**
	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.	Completed	8/31/2011	This feeder had multiple tree outages caused by a storm on 6/10/11 that resulted in a total of 203,000 Customer Minutes Interrupted. Since the beginning of 2011, 23 customers have experienced 6 outages on this feeder. Distribution Planning will analyze a project to reduce the number of outages seen by this group of customers. This feeder has not been trimmed for 6 years and is planned for trimming in 2012.
	9/29/2011: Circuit outage data analysis. Between January 2011 to September 2011, 23 customers have experienced 6 outages on this feeder. Distribution Planning will analyze projects to mitigate the number of outages seen by these customers.	Completed	12/1/2011	A project was identified to install a recloser to improve sectionalizing. With the recloser installed, the 23 customers that had 6 outages would have experienced 3 less outages in 2011.
	1/4/2012: Improve sectionalizing capability. Install telemetric recloser to reduce the exposure to customers experiencing multiple interruptions.	Scheduled for	12/31/2012	

Rank	*Action*	*Status*	*Due/Complete*	*Result*
13	**Circuit ID: 54701 NEW BLOOMFIELD 47-01**			**Location: West Shore** **CPI: 952**
	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: Line inspection-equipment. Repair insulators on New Buffalo State Park tap.	Completed	7/7/2010	Reduced outage risk.
	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.
	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 cotrols.	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.	Completed	3/15/2011	Inconclusive. Monitor future performance.
	4/20/2011: Tree trimming. Trim circuit as part of four year vegetation management cycle.	Completed	12/30/2011	Reduced outage risk.
	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	
	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 greater than 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 approximately in half.
	5/25/2011: Install fuse(s). Install additional fusing on a CEMI tap to reduce the exposure seen by customers.	Completed	1/5/2012	Reduced outage risk.

Rank	Action	Status	Due/Complete	Result
	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.	Scheduled for	11/30/2014	
	8/24/2011: Repair the failed circuit breaker on the Juniata-Shermansdale 69kV line. This line serves approximately 7,500 customers at Benvenue, Green Park, New Bloomfield, Shermansdale, and South Shermansdale substations.	Completed	8/24/2011	Reduced outage risk.
14	**Circuit ID: 10803 CHERRY HILL 08-03**			**Location: Bethlehem** **CPI: 950**
	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.	Scheduled for	12/31/2012	
	1/9/2012: Install three single phase voltage regulators near the Cherry Hill 8-3 Met-Ed tie.	Completed	12/20/2011	These voltage regulators will provide a balance of voltage between the three phases on the main line to improve the power quality of the circuit.
	1/9/2012: Install a remotely operated control switch on the three phase line just before the three customers at the beginning of the circuit. WR 680982	Scheduled for	6/1/2013	
	1/9/2012: A project has been placed into the budget to install a new area substation, Factoryville. This will improve the reliability of the Cherry Hill 8-3 and the Mt Bethel 29-2 area.	Scheduled for	3/29/2013	

Rank	Action	Status	Due/Complete	Result
15	**Circuit ID: 47704 BLOOMSBURG 77-04**			**Location: Sunbury** **CPI: 921**
	2/4/2008: Install tie. Extend 3-phase along Millville Rd up to Rt 42 and Tie 77-04 with 77-03 line	Scheduled for	2/29/2012	
	4/30/2008: Install 3 phase OCR(s). Replace existing OCR with single pole tripping recloser at grid 35204N31678. WR number is 420353.	Completed	8/31/2010	Reduced customer count affected by each outage.
	7/13/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	8/19/2010	Inconclusive. Monitor future performance. The Bloomsburg #4 circuit was discussed at Susquehanna Region's Q2 2010 WPC meeting on 8/19/10. This circuit is categorized as a WPC due to storm outages during a May 2010 weather event. This storm resulted in downed trees contacting power lines and causing significant damage.
	8/26/2010: Install tie. A project was placed into the budget to create a tie between Bloomsburg 47704 and Bloomsburg 47703. This will enhance the reliability of both Bloomsburg circuits by providing additional operating flexibility through use of remotely operated interupting and switching devices. This project is scheduled to go in service in 11/2014.	Scheduled for	11/30/2014	
	10/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	12/1/2011	This circuit was reviewed at the Susquehanna WPC meeting on 12//1/11. The Bloomsburg substation and customers served by this circuit were subjected to historical flood conditions. The flooding was caused by record setting rainfalls from tropical storm Lee. Efforts to restore service were hindered since some of PPL's equipment was inaccessible due to flooding and some of our customer's services were under water. No short term plan is required at this time. PPL will continue to monitor this circuit's performance.
	12/30/2011: Install tie. SP 15410 Relieve the Bloomsburg 77-03 Line RIS 11/2014: This project will add a new ROCS device that will allow system operators to remotely transfer customers from the BLOO 47704 to the BLOO 47703 circuit.	Scheduled for	11/28/2014	

Rank	Action	Status	Due/Complete	Result
16	**Circuit ID: 13704 SCHNECKSVILLE 37-04**			**Location: Lehigh** **CPI: 910**
	10/11/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	11/30/2010	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.
	4/20/2011: Circuit outage data analysis.	Completed	4/20/2011	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.
17	**Circuit ID: 44802 EAST DANVILLE 48-02**			**Location: Sunbury** **CPI: 909**
	10/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	12/1/2011	This circuit was reviewed at the Susquehanna WPC meeting on 12/1/11. The Danville area and customers served by this circuit were subjected to historical flood conditions. The flooding was caused by record setting rainfalls from Tropical Storm Lee. Efforts to restore service were hindered since some of PPL's equipment was inaccessible due to flooding and some of our customer's services were under water. This circuit was not previously on the WPC list. PPL will continue to monitor this circuit's performance.
18	**Circuit ID: 24401 TINKER 44-01**			**Location: Pocono** **CPI: 883**
	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.
	10/17/2011: Evaluate potential ties.	In progress		

Rank	Action	Status	Due/Complete	Result
19	**Circuit ID: 52403 GREEN PARK 24-03**			**Location: West Shore** **CPI: 864**
	11/11/2009: Install fuse(s). Install 4 tap fuses	Completed	4/30/2010	Reduced customer count affected by each outage.
	1/26/2011: Expanded Operational Review.	Completed	3/28/2011	Inconclusive. Monitor future performance. Voltage profile will continue to be monitored over the following year during peak and light load conditions to determine whether additional voltage control devices will need to be installed. A new tie between the Green Park 24-1 and Green Park 24-3 circuits is expected to improve reliability.
	7/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	8/23/2011	The Green Park 24-03 line is a long radial distribution circuit at the western edge of PPL territory. The feeder has approximately 1,160 customers across 124 circuit miles. The largest CPI contributors have been the percentage of customers with greater than 3 outages. Two of the largest interruptions occurred when a failed insulator on the Green Park 69kV tap interrupted the JUNI-SDLE 69kV line. A third transmission outage occurred when a 69 kV circuit breaker failed to reclose during a period of thunder and lightning. 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.
	8/24/2011: Repair the failed circuit breaker on the Juniata-Shermansdale 69kV line. This line serves approximately 7,500 customers at Benvenue, Green Park, New Bloomfield, Shermansdale, and South Shermansdale substations.	Completed	8/24/2011	Reduced outage risk.
	8/24/2011: Install fuse(s). Install additional fusing on a CEMI tap to reduce the exposure seen by customers.	Scheduled for	12/31/2012	
	8/24/2011: Relocate to road and reconductor to XLP approximately 1 mile of single phase along a CEMI customer tap.	Scheduled for	12/31/2013	
	11/21/2011: Install tie. Construct a new 4.5 mile three phase tie between the Green Park 24-1 and Green Park 24-3 circuits. This project will create an automated tie for approximately 1,650 radial customers between the two circuits.	Scheduled for	11/30/2014	
20	**Circuit ID: 12305 LANARK 23-05**			**Location: Lehigh** **CPI: 862**
	10/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	3/31/2012	
	1/9/2012: Circuit patrolled by a line maintanence inspector.	Completed	11/15/2011	Reduced outage risk.
	1/9/2012: Tree trimming the circuit.	Scheduled for	12/9/2012	
	1/9/2012: Adding fault indicators to a remote controlled switch. WR 648355. Improve fault location time.	Scheduled for	3/9/2012	

Rank	*Action*	*Status*	*Due/Complete*	*Result*
21	**Circuit ID: 57403 SPANGLER 74-03**			**Location: West Shore** **CPI: 850**
	5/31/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	5/31/2010	Inconclusive. Monitor future performance. The greatest contributing cause to outages has been trees from outside the trimming right of way during small storms.
	10/1/2010: Install automation devices. Add several automation devices to tie points along the Spangler 74-3 circuit. This will improve restoration times.	Completed	6/1/2011	Reduced outage duration.
	10/1/2010: Reconductor line. Reconductor part of the three phase line along Fishing Creek Road. This will improve the transfer capabilities of a tie between the Spangler 74-1 and 74-3 lines.	Scheduled for	4/1/2012	
	1/26/2011: Expanded Operational Review.	Completed	3/28/2011	Inconclusive. Monitor future performance.
	1/26/2011: Thermographic inspection-OH line.	Completed	2/28/2011	Inconclusive. Monitor future performance.
	10/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	11/21/2011	The Spangler 74-03 line is a long radial distribution circuit at the southern edge of PPL territory. The feeder has approximately 1,500 customers across 58 circuit miles. The largest CPI contributors have been the percentage of customers with greater than 3 outages. The circuit breaker experienced three interruptions in the past year. Nothing was found for two of the interruptions, and the CB held for test when thrown back in. Both outages occurred during storm weather, so it is suspected that a tree limb may have made extended contact. The third breaker outage was caused by an equipment failure on a downstream OCR. In addition to the three breaker outages, An OCR in serving 1,050 customers also experienced three interruptions in the past year. The causes include a tree from outside the trimming right of way, a vehicle pole hit, and nothing found. A failed conversion board has since been replaced in the OCR.
	11/21/2011: Install ROCS. Install a new normally open ROCS on the Spangler 74-3 in order to transfer approximately 100 customers to a more reliability source at Mount Allen Substation.	Scheduled for	12/31/2012	
	11/21/2011: Relocate a normally open point on a single phase CEMI tap. This will transfer approximately 40 customers to a source closer to the substation.	Scheduled for	12/31/2012	
	11/21/2011: Tree trimming. Trim the Spangler 74-03 line as part of its four year vegetation management cycle.	Scheduled for	12/31/2012	

Rank	Action	Status	Due/Complete	Result
22	**Circuit ID: 12302 LANARK 23-02**			**Location: Lehigh** **CPI: 829**
	4/11/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	5/31/2011	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.
	5/10/2011: Line reconfiguration	Completed	5/10/2011	Transfered about 460 customers to the new Coopersburg 9-1 line.
	1/11/2012: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	2/29/2012	
23	**Circuit ID: 13302 ORVILLA 33-02**			**Location: Bethlehem** **CPI: 820**
	7/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	8/31/2011	The largest CPI contributor has been the percentage of customers with greater than 3 interruptions. There have been 5 breaker outages this year that have affected the enitre Orvilla Circuit. Two of the outages were caused by transmission, 1 outage was caused by a circuit breaker failing to reclose, 1 outage was trees not trimming related, and a final outage was required to complete a tie line.
24	**Circuit ID: 44701 MUNCY 47-01**			**Location: Susquehanna** **CPI: 820**
	7/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	9/19/2011	This circuit was reviewed at the Susquehanna WPC meeting on 9/19/11. The largest contributor to the circuit performance index was customers with greater than 3 outages, with a contribution of 61.08%. On March 18, 2011 all of the customers on this circuit were interrupted due to a 69kV outage. All of the customers experienced a second outage on June 10, 2011 due to the 12kV circuit breaker opening. The aforementioned 12kV breaker outage and most of the other outages were caused by trees outside of the right of way falling on conductors.

Rank	Action	Status	Due/Complete	Result
25	**Circuit ID: 11001 EAST GREENVILLE 10-01**			**Location: Bethlehem** **CPI: 795**
	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.	Completed	8/20/2010	Reduced outage risk.
	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
	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 outates) 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	Completed	12/31/2011	Two new projects have been identified and are currently being engineered.
	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.	Completed	12/30/2011	Reduced outage risk.
	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 new substation near the end of the feeder.	Scheduled for	11/30/2015	
	6/17/2011: Install new remotely operated control switch near 61799S42443. Improve sectionalizing and fault detection. WR 500785	Scheduled for	5/1/2012	
	6/17/2011: Install telemetric recloser at 62160S41744. WR608684. Improve sectionalizing and add fault detection.	Scheduled for	12/17/2012	
	1/9/2012: Reconfigure circuit by removing a single phase recloser and installing two new ones down stream. WR 603059. Improve reliability by reducing the number of customer that experience an outage.	Scheduled for	5/1/2013	

Rank	*Action*	*Status*	*Due/Complete*	*Result*
26	**Circuit ID: 56802 BENVENUE 68-02**			**Location: West Shore** **CPI: 777**
	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 greater than 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.
	8/24/2011: Repair the failed circuit breaker on the Juniata-Shermansdale 69kV line. This line serves approximately 7,500 customers at Benvenue, Green Park, New Bloomfield, Shermansdale, and South Shermansdale substations.	Completed	8/24/2011	Reduced outage risk.
	11/21/2011: Extend single phase approximately 600 feet to serve a development of CEMI customers from a source closer to the substation.	Scheduled for	12/30/2012	
27	**Circuit ID: 11502 FREEMANSBURG 15-02**			**Location: Bethlehem** **CPI: 750**
	10/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	3/31/2012	
	1/9/2012: Install a telemetric recloser and remove a switch at 67019S48446. Reduce the number of customers that see an outage.	Scheduled for	12/9/2013	

Rank	*Action*	*Status*	*Due/Complete*	*Result*
28	**Circuit ID: 15603 NO STROUDSBURG 56-03**			**Location: Pocono** **CPI: 748**
	2/14/2008: Monitor future performance.	Ongoing		
	7/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	10/17/2011	Several major outages were found to exist on this line resulting from trees from outside PPL's right of way. The first outage occured on 12/27/10 where a total of 1,085 customers were affected and resulted in a customer minute interupted (CMI) value of 128,234. The second major tree related event occured on 7/11/11. In this particular outage, a total of 1,068 customers were affected resulting in a CMI value of 117,579. In addition to these two tree non-trimming related incidents, there was one animal contact outage that occured on 5/3/11. The contact occured in the substation bus work and resulted in several feeder outages including the 56-3 line. On the 56-3 line the outage resulted in an interuption of 1,078 customers and a CMI value of 94,045. In addition to these major CMI contributors there were four other breaker outages resulting from transmission outages (1), animal contact (2), and a tree contact from outside the right of way (1).
	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	

Rank	Action	Status	Due/Complete	Result
29	**Circuit ID: 12701 MACUNGIE 27-01**			**Location: Lehigh** **CPI: 730**
	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 seperate 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.	Completed	12/30/2011	A new getaway will provide increased reliability to the entire circuit.
	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	
	6/17/2011: Animal guard being installed on entire substation.	Scheduled for	12/31/2015	
	1/9/2012: Install a new remotely operatored control switch just north of the tie line near 61929S42778. WR 661962. Improve restoration time by being able to transfer customers by system operator control.	Scheduled for	12/1/2012	
	1/9/2012: Install a remotely operated control switch on the three phase line at the tie point with the East Greenville 10-1. WR 500785. Improve restoration time by being able to transfer customers to another circuit by the system operators.	Scheduled for	5/1/2012	
	1/9/2012: Install remotely operated control switch outside of substation. WR 662012. Improve restoration time and improve fault location.	Scheduled for	12/1/2012	
30	**Circuit ID: 51002 NO HARRISBURG 10-02**			**Location: Harrisburg** **CPI: 721**
	10/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	11/21/2011	The North Harrisburg 10-2 line is a short urban circuit in downtown Harrisburg. The feeder has approximately 1,700 customers across 19 circuit miles. The largest CPI contributor was circuit SAIDI. This can be attributed to a single outage during the Tropical Storm Lee flooding. Under the direction of the city of Harrisburg, PPL crews cut power to a neighborhood of approximately 1,000 customers due to flooding concerns. As the waters receded, customers were reenergized block by block. The circuit has never experienced a history of poor reliability. The flooding of Tropical Storm Lee is considered to be a one hundred year flood. Circuit performance will continue to be monitored to determine whether further action is required.

Rank	*Action*	*Status*	*Due/Complete*	*Result*
31	**Circuit ID: 15601 NO STROUDSBURG 56-01**			**Location: Pocono** **CPI: 708**
	7/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	10/17/2011	The NSTR 12 kV line experienced several outages due to varying causes in the rolling 12 month analysis. On 2/19/10, a tree from outside the right of way fell on the primary line causing an outage to 737 customers. The *largest outage during the 12 month period occured on 5/3/11* when the substation breaker failed due to an animal contact. This accounted for a total of 92,435 customer minutes interupted (CMI). At the time of the outage 841 customers were interupted. Another outage due to tree contact *from outside the right of way* occured on 6/28/11. This outage was the second highest in CMI within the past twelve months with a value of 72,618 and a total of 836 affected customers.
	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	
	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	

Rank	Action	Status	Due/Complete	Result
32	**Circuit ID: 43202 MILLVILLE 32-02**			**Location: Sunbury** **CPI: 705**
	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: Tree trimming-selected line segments only (hot spots).	Completed	6/10/2010	Reduced outage risk.
	6/7/2010: Install 1 phase OCR(s).	Scheduled for	2/29/2012	
	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 maintainence). The line will be monitored for future issues.
	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 interupting 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.	Completed	1/31/2011	Reduced outage risk. This circuit has been on the WPC list the last 11 quarters. In January of 2011 half of the customers from this circuit were transferred to the new MVIL 43201 circuit. In the third quarter of 2011 the performance of this circuit noticeably improved due to the reduced customer count and the reduced line exposure.
33	**Circuit ID: 22602 KIMBLES 26-02**			**Location: Pocono** **CPI: 691**
	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	1/15/2012	
	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.

Rank	*Action*	*Status*	*Due/Complete*	*Result*
34	**Circuit ID: 28102 TWIN LAKES 81-02**			**Location: Pocono** **CPI: 688**
	7/14/2009: Monitor future performance.	Completed	4/11/2011	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 on 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 on 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. Reviewed this circuit 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	5/31/2014	

Rank	Action	Status	Due/Complete	Result
35	**Circuit ID: 46602 LARRYS CREEK 66-02**			**Location: Susquehanna** **CPI: 648**
	7/6/2010: Perform line maintenance identified by line inspection.	Completed	7/15/2010	Reduced outage risk. WR 584573 - Replace stem connections and secondary splice - Minimal
	7/6/2010: Install fuse(s).	Completed	3/1/2011	Reduced customer count affected by each outage. WR 556903 - Install 1 Fuse
	7/6/2010: Install fuse(s).	Completed	3/1/2011	Reduced customer count affected by each outage. WR 556905 - Install 5 Fuses
	7/6/2010: Install fuse(s).	Completed	7/1/2011	Reduced customer count affected by each outage. WR 556906 - Install 1 fuse
	7/6/2010: Install fuse(s).	Completed	3/1/2011	Reduced customer count affected by each outage. WR 556915 - Install 1 fuse
	7/7/2010: Relocate inaccessible line. Relocate inaccessible line along Duffy's Rd.	Completed	7/16/2010	Reduced outage risk. WR 535675 - Relocate inaccessible line along Duffy's Rd
	7/7/2010: Install fuse(s).	Completed	7/12/2010	Reduced customer count affected by each outage. WR 535701 - Install 1 fuse along Spook Hollow Rd.
	7/7/2010: Relocate inaccessible line.	Completed	3/1/2011	Reduced customer count affected by each outage. WR 556898 - Install 2 fuses on Youngs Rd
	7/7/2010: Relocate inaccessible line.	Completed	7/15/2010	Reduced customer count affected by each outage. WR 535703 - Relocate inaccessible line along Martins Rd.
	7/7/2010: Install fuse(s).	Completed	3/1/2011	Reduced customer count affected by each outage. WR 556899 - Install 1 fuse on Pine Run Rd
	7/7/2010: Thermographic inspection-OH line.	Completed	3/31/2010	
	7/7/2010: Perform line maintenance identified by line inspection.	Completed	8/9/2010	Reduced outage risk. WR 584574 - Replace cutouts/lightning arrestors - Minimal
	7/7/2010: Perform line maintenance identified by line inspection.	Completed	6/25/2010	Reduced outage risk. WR 584575 - Replace 'B' phase stirrup - Emergency
	7/7/2010: Relocate inaccessible line.	Scheduled for	2/29/2012	Reduced outage risk. WR 556910 - Relocate Inaccessible Line along Tombs Run Rd.
	7/7/2010: Install fuse(s).	Completed	3/1/2011	Reduced customer count affected by each outage. WR 556897 - Install 1 fuse on Level Corners Rd
	7/7/2010: Install 1 phase OCR(s).	Completed	5/13/2010	Reduced customer count affected by each outage. WR 535676 - Install New OCR to protect new line from WR 535675
36	**Circuit ID: 25402 LAKE HARMONY 54-02**			**Location: Wilkes-Barre** **CPI: 646**
	1/11/2012: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	2/29/2012	

Rank	Action	Status	Due/Complete	Result
37	**Circuit ID: 15602 NO STROUDSBURG 56-02**			**Location: Pocono** **CPI: 643**
	10/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	11/25/2011	The North Stroudsburg 56-2 12 kV line experience two major outages that caused it to become a top WPC circuit. The first major outage occured on 5/3/11 when an animal came in contact with the bus work in the substation taking out the breaker. This resulted in an outage for 1194 customer and a *Customer Minute Interrupted* value of 196,542. The second major outage occured on 7/7/11 when a tree from outside the right of way fell on the primary wire causing the three phase OCR to trip to lockout. This outage affected 960 total customers and accounted for 119,202 CMI . Other than these major events, a majority of the existing outages occured on transformers and fuses resulting from trees from outside the right of way.
38	**Circuit ID: 22402 MORGAN 24-02**			**Location: Scranton** **CPI: 642**
	12/15/2009: Relocate inaccessible section of 3 phase line.	Scheduled for	11/30/2013	
	6/30/2010: Circuit outage data analysis.	Completed	7/21/2010	Inconclusive. Monitor future performance. No major outages in Q1 2010. Circuit performance has improved.
	10/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	3/15/2012	
39	**Circuit ID: 43201 MILLVILLE 32-01**			**Location: Sunbury** **CPI: 637**
	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. PPL will continue to monitor this circuit's future performance.
40	**Circuit ID: 53601 DALMATIA 36-01**			**Location: Harrisburg** **CPI: 626**
	10/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	11/21/2011	The Dalmatia 36-1 line is a long distribution circuit in a rural section of PPL territory. The feeder has approximately 1,150 customers across 102 circuit miles. The largest CPI contributors have been the percentage of customers with greater than 3 interruptions. The circuit breaker experienced a single outage on 3/07/11 due to a failed insulator on the main three phase line. In addition to the circuit breaker interruption, OCR serving 330 customers experienced four interruptions in the past year. The causes include trees trimming related, a vehicle pole hit, and two trees not trimming related. The circuit is currently being trimmed.
	11/21/2011: Tree trimming. Trim the Dalmatia 36-01 line as part of its four year vegetation management cycle.	Completed	12/30/2011	Reduced outage risk.
41	**Circuit ID: 64101 RED FRONT 41-01**			**Location: Lancaster** **CPI: 619**
	1/11/2012: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	2/29/2012	

Rank	*Action*	*Status*	*Due/Complete*	*Result*
42	**Circuit ID: 12301 LANARK 23-01**			**Location: Lehigh** **CPI: 618**
	6/29/2011: *Monitor future performance.*	Completed	6/29/2011	Intelligent switching scheme has been turned off and will be removed entirely to be replaced with traditional recloser controls. Monitor future performance for improvement.
	10/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	3/31/2012	
	1/9/2012: Tree trimmed circuit.	Completed	12/9/2010	Reduced outage risk.
	1/9/2012: Replacing old circuit automation controls. Improve fault location, restoration time, and communication with devices.	Scheduled for	12/9/2014	
43	**Circuit ID: 44601 SALEM 46-01**			**Location: Sunbury** **CPI: 599**
	1/11/2010: Expanded Operational Review.	Completed	12/31/2010	Reduced outage risk.
	1/11/2012: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	2/29/2012	
44	**Circuit ID: 47502 NEW COLUMBIA 75-02**			**Location: Sunbury** **CPI: 583**
	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.	Completed	9/19/2011	This circuit was reviewed at the Susquehanna WPC meeting on 9/19/11. The largest contributor to the circuit performance index was a SAIDI contribution of 42.8%. On April 28, 2011 a microburst took down several spans of three phase circuit which caused the circuit breaker to open. Due to the extensive damage all of the customers on this line were out of service for 1945 minutes. PPL will continue to monitor this circuit's future performance.

Rank	Action	Status	Due/Complete	Result
45	**Circuit ID: 43302 WATSON 33-02**			**Location: Sunbury** **CPI: 576**
	1/4/2010: Expanded Operational Review.	Completed	12/31/2010	No problems were found. PPL will continue to monitor this circuit's performance.
	10/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	12/1/2011	This circuit was reviewed at the Susquehanna WPC meeting on 12/1/11. On April 28, 2011 all of the customers on this circuit as well as 97 customers that are normally served by the NECO 47502 circuit experienced an outage. This outage was caused by trees taking down wires and breaking cross arms. Customers from the NECO 47502 were temporarily transferred to the WATS 43302 since a helicopter crash took down the river crossing on July 19, 2010. Until repairs were made to the NECO 47502 this circuit had increased exposure to trees and load could not be sectionalized and transferred to the NECO 47502. This circuit was never on the WPC list before. PPL will continue to monitor this circuit's performance.
46	**Circuit ID: 51003 NO HARRISBURG 10-03**			**Location: Harrisburg** **CPI: 575**
	1/11/2012: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	2/29/2012	
47	**Circuit ID: 11506 FREEMANSBURG 15-06**			**Location: Bethlehem** **CPI: 575**
	10/13/2010: Build a three phase tie line loop with the 15-6 line. Included in this project is installing five remotely operated devices.	Completed	12/2/2010	Reduced outage duration and improved fault location.
	7/20/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	8/31/2011	The largest CPI contributor has been the percentage of customers with greater than 3 interruptions. There have been 3 outages affecting over 1,000 customers, these 3 outages were caused by equipment failure and trees not trimming related. In addition, there have been several more localized outages caused by trees not trimming related. At this point the protection scheme for this circuit appears to be adequate. Monitor future performance for any changes.
	11/9/2011: Circuit was trimmed and had a line patrol by a line maintanence inspector.	Completed	11/10/2011	Reduced outage risk.
48	**Circuit ID: 45002 LIMESTONE 50-02**			**Location: Sunbury** **CPI: 573**
	1/5/2011: Expanded Operational Review. EOR Planned for 2011	EOR initiated	12/31/2011	
	1/5/2011: Thermographic Inspection-OH line. Thermovision inspection of 2 and 3 phase sections to be completed early 2011.	Completed	2/7/2011	Reduced outage risk. Completed 2/7/2011 - All necesary repairs completed.
	1/11/2012: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	2/29/2012	

Rank	*Action*	*Status*	*Due/Complete*	*Result*
49	**Circuit ID: 59202 THOMPSONTOWN 92-02**			**Location: West Shore** **CPI: 571**
	10/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	11/21/2011	The Thompsontown 92-2 line is a long distribution circuit in a rural section of PPL territory. The feeder has approximately 2,300 customers across 190 circuit miles. The largest CPI contributors have been the percentage of customers with greater than 3 interruptions. An OCR serving approximately 1,000 customers experienced three interruptions in the past year. The causes include trees not trimming related, trees trimming related, and nothing found. The OCR is scheduled for replacement in 2012.
	11/21/2011: Replace 3 phase OCR. Replace vintage three phase OCR which serves approximately 1,050 customers. The OCR was subject to a probable miscoordination outage earlier in the year.	Scheduled for	12/31/2012	
50	**Circuit ID: 22001 BOHEMIA 20-01**			**Location: Pocono** **CPI: 550**
	10/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	3/15/2012	
51	**Circuit ID: 57006 WHITE HILL 70-06**			**Location: West Shore** **CPI: 534**
	11/11/2009: Install fuse(s). Install tap fuse	Completed	3/16/2010	Reduced customer count affected by each outage.
	4/11/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	5/25/2011	Q1 2011 is the first quarter the circuit has appeared on the WPC list. The largest CPI contributor has been SAIDI. The breaker has been interrupted three times in the last 4 quarters. Two of the breaker outages were due to trees from outside the trimming right of way during storms. The third outage was caused by an equipment failure. White Hill will be a future Smart Grid substation. Currently all of the automated tie points are installed but not yet live. An additional OCR and two normally closed LBAS will be replaced with automated devices later this year. Once the automated devices are installed and live, circuit SAIDI is anticipated to improve dramatically.
	5/25/2011: Install additional SMARTGRID devices. Automate the White Hill 70-6 line as part of the SMARTGRID pilot program.	Completed	12/30/2011	Reduced outage duration.
	10/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	11/21/2011	The White Hill 70-6 line reappeared on the WPC list after a one quarter hiatus. The feeder has approximately 1,370 customers across 22 circuit miles. The largest CPI contributor has been circuit SAIDI. The circuit breaker experienced a total of three interruptions in the past year. Two of the outages were caused by trees from outside the trimming right of way during storms. The third interruption was caused by an equipment failure. The circuit has never experienced a history of poor reliability until recently. Performance is expected to improve once the Smart Grid equipment is partially put into service by the end of the year.

Rank	Action	Status	Due/Complete	Result
52	**Circuit ID: 22802 HAUTO 28-02**			**Location: Central** **CPI: 524**
	1/11/2012: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	2/29/2012	
53	**Circuit ID: 17902 BARTONSVILLE 79-02**			**Location: Pocono** **CPI: 522**
	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	
54	***Circuit ID: 55401 SOUTH HERSHEY 54-01***			**Location: Harrisburg** **CPI: 521**
	1/26/2011: Thermographic inspection-OH line.	Completed	2/28/2011	Inconclusive. Monitor future performance.
	1/11/2012: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	2/29/2012	
55	**Circuit ID: 46206 DANVILLE 62-06**			**Location: Sunbury** **CPI: 512**
	10/25/2007: Relocate inaccessible line.	Completed	10/28/2010	Reduced outage risk. Relocate inaccesible portion of Pine Swamp Hollow Tap on Danville 62-06. Will be done with Reliability Preservation budget funds.
	10/12/2011: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	12/1/2011	This circuit was reviewed at the Susquehanna WPC meeting on 12/1/11. The Danville area and customers served by this circuit were subjected to historical flood conditions. The flooding was caused by record setting rainfalls from tropical storm Lee. Efforts to restore service were hindered since some of PPL's equipment was inaccessible due to flooding. This circuit was not on the WPC list before. PPL will continue to monitor this circuit's performance.

Rank	Action	Status	Due/Complete	Result
56	**Circuit ID: 41002 LAURELTON 10-02**			**Location: Sunbury** **CPI: 477**
	3/31/2008: Monitor future performance.	Completed	4/8/2011	Reduced outage risk. Many new improvements to the Laurelton 10-02 line have lessened the number and size of outages. Further improvements are being made to automate equipment and improve sectionalizing capabilities.
	1/18/2010: Circuit outage data analysis - WPC not on preceding qtr. list.	Completed	3/4/2010	This circuit was discussed at the Susquehanna Region WPC meeting on 3/4/10. The performance of this line was driven mainly by storm activity in the 4th Quarter of 2009. Two October 2009 events resulted in significant damage to electric facilities in this area. This line is being targeted for Asset Optimization in effort to relocate, reconductor, and/or eliminate #6 CWC primary conductors in high risk and inacessible locations.
	1/6/2011: Thermographic inspection-OH line. Thermovision inspection of entire line to be completed early 2011.	Completed	2/11/2011	Reduced outage risk. Inspection completed 2/11/11 - All necessary repairs completed.
	1/11/2012: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	2/29/2012	
57	**Circuit ID: 40201 BEAR GAP 02-01**			**Location: Central** **CPI: 468**
	4/20/2009: Install 7 new fault indicators to help reduce outage durations.	Completed	1/5/2011	Reduced outage risk and outage duration.
	5/27/2009: Install 1 phase OCR(s). Install OCR to replace overloaded tap fuse.	Completed	10/29/2010	Reduced customer count affected by each outage.
	10/9/2009: Relocate inaccessible line. Relocate three phase line to main road and remove inaccessible single-phase tap.	Scheduled for	4/29/2012	WR 518527 - Fisherdale Rd.
	1/11/2012: Circuit outage data analysis - WPC not on preceding qtr. list.	Scheduled for	2/29/2012	
	1/11/2012: Relocate inaccessible line. Relocate 3-phase line to road.	Scheduled for	6/30/2013	

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[7]	Percent of Trouble Cases	Customer Interruptions[8]	Percent of Customer Interruptions	Customer Minutes	Percent of Customer Minutes
Animals	2,915	15.53%	50,648	3.35%	5,078,343	2.19%
Contact/Dig-In	159	0.85%	17,219	1.14%	1,169,890	0.50%
Directed by Non-PPL Authority	235	1.25%	9,126	0.60%	3,834,645	1.65%
Equipment Failures	6,189	32.96%	499,538	33.03%	61,194,786	26.35%
Improper Design	2	0.01%	1,580	0.10%	44,438	0.02%
Improper Installation	3	0.02%	2,056	0.14%	362,374	0.16%
Improper Operation	3	0.02%	1,646	0.11%	124,933	0.05%
Non PPL Problem-Cust Fac	174	0.93%	1,866	0.12%	889,777	0.38%
Non PPL Problem-Other	188	1.00%	21,424	1.42%	6,234,242	2.68%
Nothing Found	1,558	8.30%	164,166	10.85%	10,769,409	4.64%
Other-Controllable	107	0.57%	23,718	1.57%	6,869,579	2.96%
Other-Non Control	499	2.66%	36,904	2.44%	8,244,261	3.55%
Other-Public	84	0.45%	20,076	1.33%	2,550,727	1.10%
Trees-Not Trimming Related	5,066	26.98%	448,489	29.65%	92,789,585	39.96%
Trees-Trimming Related	824	4.39%	51,214	3.39%	13,919,693	5.99%
Vehicles	770	4.10%	162,771	10.76%	18,144,497	7.81%
Total	**18,776**	**100.00%**	**1,512,441**	**100.00%**	**232,221,179**	**100.00%**

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

[8] 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 15.5% 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 79% 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 50% of the cases of trouble, 54% of the customer interruptions and 60% 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	4th Quarter		Year-to-date	
		Budget	Actual	Budget	Actual
Transmission					
Transmission C-tag poles (# of poles)	400	82	80	400	398
Transmission arm replacements (# of sets)	100	25	39	100	120
Transmission air break switch inspections (# of switches)	0	0	0	0	2
Transmission lightning arrester installations (# of sets)	38	1	1	38	33
Transmission pole inspections (# of poles)	5,200	0	0	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	92.14	53.84	503	503
Transmission re-clearing (# of miles) 69/138 kV	765.84	193.34	218.01	745.73	745.73
Transmission danger tree removals-Bulk Power (# of trees)	N/A				
Substation					
Substation batteries (# of activities)	844	43	47	844	850
Circuit breakers (# of activities)	1270	315	177	1270	596
Substation inspections (# of activities)	2637	606	175	2,637	1,411
Transformer maintenance (# of activities)	2190	513	209	2,190	1,150
Distribution					
Distribution C-tag poles replaced (# of poles)	1,600	157	417	1,600	1,583
C-truss distribution poles (# of poles)	5,500	1,841	0	5,500	4,342
Capacitor (MVAR added)	57	4	0	57	59
OCR replacements (# of)	644	0	6	644	449
Distribution pole inspections (# of poles)	130,000	29,312	0	130,000	121,489
Distribution line inspections (# of miles)	3,000	62	1,305	3,000	4,805
Group re-lamping (# of lamps)	16,000	4,815	2,072	16,000	10,046
Test sections of underground distribution cable	500	109	86	500	617
Distribution tree trimming (# of miles)	5,139	1,301.30	1,531.46	5,127	4,980
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	76	0	423	121
LTN vault inspections (# of)	758	181	0	758	170
LTN network protector overhauls (# of)	101	22	0	101	11
LTN reverse power trip testing (# of)	119	29	0	119	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).

	4th Quarter		Year-to-date	
Activity	**Budget ($000)**	**Actual ($000)**	**Budget ($000)**	**Actual ($000)**
Provide Electric Service	2,641	2,620	10,163	9,289
Vegetation Management	7,099	9,476	28,484	34,037
Customer Response	14,918	24,034	61,239	83,879
Reliability & Maintenance	13,499	11,964	56,322	45,644
System Upgrade	745	120	3,702	869
Customer Services/Accounts	29,339	26,494	119,369	103,081
Others	11,665	21,198	48,386	77,089
Total O&M Expenses	**79,905**	**95,906**	**327,665**	**353,888**

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.

	3rd Quarter		Year-to-date	
	Budget ($000)	**Actual ($000)**	**Budget ($000)**	**Actual ($000)**
New Service/Revenue	13,280	18,707	53,822	74,973
System Upgrade	33,270	29,019	132,833	122,964
Reliability & Maintenance	37,841	53,826	161,804	190,688
Customer Response	4,894	11,703	20,550	26,198
Other	7,261	9,344	20,907	19,601
Total	**96,546**	**122,599**	**389,917**	**434,424**

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	76
Journeyman Lineman	199
Journeyman Lineman-Trainee	107
Helper	1
Groundhand	5
Troubleman	56
T&D Total	**458**
Electrical	
Elect Leaders-UG	6
Elect Leaders-Net	10
Elect Leaders-Sub	27
Journeyman Elect-UG	30
Journeyman Elect-Net	12
Journeyman Elect-Sub	64
Journeyman Elect Trainee-UG	1
Journeyman Elect Trainee-Net	6
Journeyman Elect Trainee	12
Helper	22
Laborer-Network	0
Laborer-Substation	0
Electrical Total	**190**
Overall Total	**648**

Appendix A

PPL Electric Utilities Corporation
Worst Performing Circuit Definition

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

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

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

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

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

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

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

Appendix B

PPL Electric Utilities Corporation
Service Interruption Definitions

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

10 – Improper Design	Controllable	• 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	• 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	• 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[9]	Controllable	• 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	• 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	• 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	• When cars, trucks or other types of vehicles or their cargoes strike facilities causing a problem.

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

51 – Contact/Dig-in	Public	• 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	• 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 Electric Problem – Other	Non-PPL Electric	• Where no PPL Electric or customer facilities were affected, and no repair or restoration was carried out on PPL Electric equipment.
78 – Non-PPL Electric Problem – Customer Facility	Non-PPL Electric	• Where no PPL Electric facilities were affected, and no repair or restoration was carried out on PPL Electric equipment.
80 – Scheduled Outage[10]	Controllable	• Interruptions under the control of a PPL Electric switchman or direction of a PPL Electric System Operator for the purpose of performing scheduled 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.

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

Appendix B

85 – Directed by Non-PPL Electric Authority	Non-Controllable	• 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	• 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	• 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	• 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.

99 – Other – Non-Controllable (Lineman provides explanation)	Non-Controllable	• 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.

Appendix C

PPL Electric Utilities Corporation
Job Descriptions

Transmission and Distribution

Groundhand	• Performs manual labor and assists employees in higher job classifications.
Helper	• 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	• 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	• 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	• 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	• Investigates and resolves trouble calls, voltage abnormalities on transmission and distribution systems associated with, but not limited to, PPL Electric facilities.

Appendix C

Electrical

Electrician Leader - Substation - Network - Underground	• 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.
Helper - Substation - Network - Underground	• 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.
Laborer - Substation - Network - Underground	• Performs manual labor and assists employees in higher job classifications.
Journeyman Electrician - Substation - Network - Underground	• 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.
Journeyman Electrician - Trainee - Substation - Network - Underground	• 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.

From: (610) 774-6908
Karen Posten
PPL Corporation
2 N 9th St

Allentown, PA 18101

Origin ID: ABEA

FedEx Express

J12101112190225

Ship Date: 30JAN12
ActWgt: 5.0 LB
CAD: 8616795/INET3250

Delivery Address Bar Code

Ref # PER 205 734268 002
Invoice #
PO #
Dept #

SHIP TO: (717) 772-7777 BILL SENDER

ROSEMARY CHIAVETTA, SECRETARY
PA Public Utility Commission
400 NORTH ST
COMMONWEALTH KEYSTONE BUILDING
HARRISBURG, PA 17120

TUE - 31 JAN A1
PRIORITY OVERNIGHT

TRK# 7980 0159 7711
0201

ZN MDTA

17120
PA-US
MDT

512G1/9F58/A278

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.