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April 29, 2010

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Honorable James J. McNulty Secretary Pennsylvania Public Utility Commission Commonwealth Keystone Building 400 North Street Harrisburg, PA 17120

APR 29 2010

PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU

Re: <u>Electric Service Reliability Regulations</u> <u>Docket No. L-00030161</u>

Dear Secretary McNulty:

In accordance with the Electric Reliability Regulations adopted by the Pennsylvania Public Utility Commission in its order dated May 20, 2004 in Docket No. L-00030161 and a March 17, 2004, letter from James J. McNulty extending the filing date, Pike County Light & Power Company hereby files an original and six copies of its Service Reliability Report for 2009 System Performance.

Any questions regarding this report should be addressed to me at the address listed above or I can be reached at (845) 577-3341.

Very truly yours,

John Muir Section Manager Electric Reliability Support Performance & Operational Engineering

TTG/dlp

Enclosures

cc: Office of Consumer Advocate Office of Small Business Advocate Pennsylvania AFL-CIO

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PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU

Pike County Light & Power Company (Orange and Rockland Utilities, Inc.)

Annual Electric Reliability Report

2009

April 2010

§ 57.195. (b)(1) An overall assessment of the state of the system reliability in the EDC's service territory including a discussion of the EDC's current programs and procedures for providing reliable electric service.

Overall Current Assessment

Orange & Rockland Utilities, Inc.'s ("O&R") "Northern Division" includes the service territory of Pike County Light & Power Company ("Pike" or the "Company"), as well as portions of Orange County and Sullivan County in New York State, and portions of Sussex County in New Jersey¹. Pike County is the southernmost portion of Orange & Rockland Utilities' Western Division. Pike's service territory in Pennsylvania ("PA.") is primarily fed from two 34.5 kV feeders that originate from New York Substations; Line 5-10 from the Cuddebackville Substation, and Line 7 from the Port Jervis Substation. The eastern portion of the Company's service territory is fed by two 13.2kV feeders from the Matamoras Substation that have ties to Port Jervis 13.2kV distribution circuitry as well. The Matamoras Substation is fed from both Line 5-10 and Line 7, which back each other up through an automatic transfer scheme at the substation. The western portion of the service territory is fed radially from Line 7.

On August 17, 2006 The Pennsylvania Public Utilities Commission (PAPUC) adjusted the service reliability standards for Pike as follows:

- 12-Month System Average Interruption Frequency Index (Frequency or SAIFI) 0.82 interruptions per customer served;
- 12-month Customer Average Interruption Duration Index (Restoration or CAIDI) 235 minutes of interruption per customer interrupted;
- 12-month System Average Interruption Duration Index (Duration or SAIDI) 194 minutes per customer served.

In 2009, the Pike County service territory experienced a Frequency of 0.60 interruptions per customer served, a Restoration of 178 minutes, and a Duration of 106 customer-minutes of interruption. These results are detailed on Page 5 of this Report, along with the most recent three-year history for these indices. SAIFI was 27% below the standard for frequency, CAIDI was 24% better than the 235 minute average reliability standard for restoration. The resultant SAIDI was 30% better than the 194 minute reliability standard for duration.

The three-year reliability standards for Pike are as follows:

Three-year annualized SAIFI 0.67 interruptions per customer served;

Three-year annualized CAIDI 192 minutes of interruption per customer interrupted;

Three-year annualized SAIDI 129 minutes per customer served.

For the three-year period ending December 2009, Pike experienced an annualized Frequency of 0.50 interruptions per customer served, a Restoration of 180.2 minutes, and Duration of 90.7 customer minutes of interruption. All three performance measures were better than the three-year standards, while SAIFI and SAIDI were also lower than their respective Benchmarks.

There was one major event affecting Pike's service territory during 2009 that was accepted by the PAPUC to be excluded from the statistics. This major lightning storm event affected 4,368 customers for a total of 78,968 customer-hours of interruption, and is detailed on Page 4 of this Report.

¹ The Orange & Rockland System includes the service territories of O&R (in New York), Pike (in Pennsylvania), and Rockland Electric Company (in New Jersey). The Orange & Rockland System is divided into the Eastern, Western and Central divisions.

The table on Page 6 summarizes, by cause, Pike customer interruptions experienced in 2009, with pre-arranged outages and major events removed. The major cause is tree contact with 31 interruptions affecting 1,519 customers for a total of 281,386 customer-minutes. The program targeted to manage this area is the three-year, cycle-based tree clearance program. In addition, a Circuit Ownership Program has been continued, whereby circuits are patrolled by 'circuit owners', who report items that are in need of remediation. This effort, along with other of the Company's Service Reliability programs, discussed later in this report, are designed to target equipment and circuits that require performance upgrades.

There were two new reclosers installed and one recloser upgraded in PA in 2009 and one sectionalizer was removed. By the end of 2009, radio communications had been installed to these reclosers back to our energy control center. Full status and control to our distribution operators will be completed in early 2011.

The distribution inspection and maintenance goals/objectives and capital expenses, are listed starting on Page 7 of this Report. Presently, Pike has no transmission lines.

57.195. (b)(2) A description of each major event that occurred during the year being reported on, including the time and duration of the event, the number of customers affected, the cause of the event and any modified procedures adopted to avoid or minimize the impact of similar events in the future.

Major Events

Date	Cause	Time	Duration	Customers	Customer Minutes
			(minutes)	Affected	of Interruption
6/26/09	Storm (6 Interruptions)	16:44	3,563	4,368	4,738,108

O&R's storm center was activated at approximately 3:00 PM on June 26th, in response to a strong line of thunderstorms with lightning and rain that crossed through the PCL&P service territory. Significant damage to wires, poles and other equipment, primarily due to lightning was experienced. In the Pike service area, there were six interruptions, affecting 4,368 customers. The largest outage, affecting 2,490 customers, was due to damage at several locations on Line 7, including multiple locations of wires down and a broken pole. Shortly after the loss of Line 7, lightning caused the loss of circuit 5-10-34, which along with Line 7, supplies the Matamoras substation. This resulted in the loss of an additional 1,759 customers. Again, wires were down in multiple locations.

57.195. (b)(3) A table showing the actual values of each of the reliability indices (SAIFI, CAIDI, SAIDI, and if available, MAIFI) for the EDC's service territory for each of the preceding 3 calendar years. The report shall include the data used in calculating the indices, namely the average number of customers served, the number of sustained interruptions, the number of customers affected, and the minutes of interruption. If MAIFI values are provided, the number of customer momentary interruptions shall also be reported.

				Reliability Indic	es		
				2006 - 2008			
Year	SAIFI	CAIDI	SAIDI	Average Number of Customers Served	Number of	Customers Affected	Customer Minutes
2007	0.45	125	57	4,416	48	2,004	. 251,345
2008	0.46	236	109	4,451	65	2,045	483,029
2009	0.60	178	106	4,469	56	2,666	475,501



§ 57.195. (b)(4) A breakdown and analysis of outage causes during the year being reported on, 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 identify service problems shall be reported.

Causes Of Interruptions				
	Number of	Percent of	Customers	Customer Minutes
Cause	Interruptions	Interruptions	Affected	of Interruption
Animal	. 4	7.1%	64	5,359
Tree	31	55.4%	1,519	281,386
Overload	1	1.8%	1	181
Work Error	0	0.0%	0	· 0
Equipment Failure	14	25.0%	803	98,000
Non-Company Acc	0	0.0%	0	0
Customer Problem	0	0.0%	0	0
Lightning	4	7.1%	228	0
None Found/Other	2	3.6%	51	4,204
TOTAL	56		2,666	475,501

As noted in the above table, the primary cause of interruptions in 2009 was from 'tree contacts'. Although there were more customers affected by this cause, there were fewer interruptions and fewer customer minutes of interruptions than the prior year. The change to a more frequent (3-year) tree trimming cycle should help to contain the number of these types of interruptions.

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PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU § 57.195. (b)(6) A comparison of established transmission and distribution inspection and maintenance goals/objectives versus actual results achieved during the year being reported on. Explanations of any variances shall be included.

T/D Inspection/Maintenance Goals/Objectives

Goals/Objectives vs. Results

Distribution goals and objectives focused on completing all scheduled preventive maintenance. These goals were met. Pike has no transmission.

Distribution Tree Trimming

Trimming was completed on all Pike distribution circuits in 2009, as planned.

Infrared Inspection Program

The 2009 program included inspecting all 3-phase circuitry, and this was completed as planned.

Power Quality

The 2009 maintenance program required inspection of 11 capacitors and five regulators. The Power Quality goals were met.

Mid-point Recloser / Sectionalizing Program

The 2009 maintenance program required inspection of one sectionalizer and one recloser. There were two new reclosers installed and one recloser upgraded in PA in 2009 and one sectionalizer was removed. The Mid-point Recloser / Sectionalizing Program goals were met.

Substation Maintenance and Inspection Program

The 2009 required completion of all inspection and maintenance requirements as listed in Appendix I for the Matamoras Substation. Also, two class #3 circuit breaker inspections and a class #3 transformer inspection and Doble Power Factor Test were completed. The Substation Maintenance and Inspection Program goals were met.

§ 57.195. (b)(7) A comparison of budgeted versus actual transmission and distribution operation and maintenance expenses for the year being reported on in total and detailed by the EDC's own functional account code or FERC account code as available. Explanations of any variances 10% or greater shall be included.

T&D Operation and Maintenance Expenses

O&M Accounts	2009 Budget k\$ 20	09 Actual k\$
580 Operation Supervision And Engineering	110.0	88.5
581 Load Dispatching	3.4	4.5
582 Station Expenses	16.1	6.0
583 Overhead Line Expenses	24.7	42.6
584 Underground Line Expenses	(6.0)	(1.0)
586 Meter Expenses	128.0	30.5
587 Customer Installation Expenses	1.2	0.3
588 Miscellaneous Distribution Expenses	16.5	58.5
589 Rents	0.7	. 0.3
592 Maintenance Of Structures And Equipment	0.0	0.0
593 Maintenance of Overhead Lines	196.0	784.0
594 Underground Line Expenses	5.4	7.0
595 Maintenance of Line Transformers	0.0	0.0
596 Maintenance of Street Lighting and Signal Systems	0.0	7.7
597 Maintenance of Meters	10.5	6.1
598 Maintenance of Miscellaneous Distribution Plant	0.0	0.0
599 Joint use	110.4	115.2
Total Distribution	\$616.9	\$1,150.2

Overall, 2009 O&M Expenses were significantly higher than the Budget. However, after adjusting for over budget storm costs of \$458.3k, in Account 593, the overall variance is 12%.

The major contributor to the cost over-run was in budget area 593, which was due to tree trimming that was scheduled for 2008 and completed in 2009; some of the maintenance portion of the Distribution Automation installation and relocation projects were accounted for in 2009, and \$458k of storm costs were incurred.

Additional line items that were more than 10% (and \$10k) above the budget were Overhead Line Expenses and Miscellaneous Distribution Expenses. This cost overrun was primarily due to unbudgeted expenses for overtime to repair damage from poles damaged by motor vehicle accidents.

These cost overruns were offset by expenditures that variance of at least 10% (and \$10k) under budget: Operation Supervision and Engineering, Station Expenses, and Meter Expenses.

§ 57.195. (b)(8) A comparison of budgeted versus actual transmission and distribution capital expenditures for the year being reported on in total and detailed by the EDC's own functional account code or FERC account code as available. Explanations of any variances 10% or greater shall be included.

T/D

Capital Expenditures					
Account Code	Account Code 2009 Actual k\$				
. 70-various	Electric Distribution Blankets - PA	\$136.1	\$253,7		
70-various	New Business - PA	101.7	31.4		
70-9717	Ground to Sky Tree Trimming Blanket (PARC)	250.0	265.3		
70-9718	Circuit Reliability Blanket (PARC)	10.0	73.4		
70-9719	Pole Inspection Blanket (PARC)	32.4	0.0		
70-9723	Delaware Drive Roadwork	0.0	48.8		
90-various	Electric Distribution Blankets - PA	37.2	5.5		
90-various	New Business - PA	66.2	15.7		
90-0129	2009 Transformers - U/G PA	0.0	23.1		
	Total Distribution	\$633.6	\$716.9		

The 2009 overall Capital Expenditures exceeded the Budget by 13%. Adjusting for the Delaware Drive Roadwork, which was an unbudgeted expense, the variance is 2%.

Account code 70-9723, Delaware Drive Roadwork was not budgeted. In 2009, a state project began to relocate 17 poles along Delaware Drive due to the installation of a guardrail. This project is still in progress with four poles left to transfer.

Costs of Underground Transformers were unbudgeted, and included installation of transformers for which customer contributions were made for their installation.

Actual expenditures also exceeded budget for Electric Distribution Blanket and Circuit Reliability Blanket accounts, primarily due to a storm event that impacted the PCL&P service area, on November 28th, but did not qualify as a Company storm.

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PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU

§ 57.195. (b)(9) Quantified transmission and distribution inspection and maintenance goals/objectives for the current calendar year detailed by system area (that is by transmission, substation and distribution.)

T/D Inspection and Maintenance Goals/Objectives Quantified

Inspection and maintenance programs, designed with the intention of improving frequency of interruption and minimizing the resultant increases in restoration (as frequency is improved), have been in effect in Pike's service territory for over ten years. These programs are focused on field facilities and customer satisfaction, and are effective in minimizing the probability of an interruption while limiting the number of customers affected per interruption. The major programs are:

Distribution Tree Trimming

Trimming was completed on all Pike distribution circuits in 2009, and will be scheduled again in 2012.

Infrared Inspection Program

In 2010, the Infrared Inspection Program will include all 3-phase and single phase circuitry.

Power Quality

The 2010 maintenance program will require inspection of 11 capacitors and five regulators.

Mid-point Recloser / Sectionalizing Program

The 2010 maintenance program will require inspection of three reclosers.

Substation Maintenance and Inspection Program

The 2010 maintenance program will require the completion of all monthly and annual inspection and maintenance requirements as listed in Appendix I for the Matamoras Substation.

§ 57.195. (b)(10) Budgeted transmission and distribution operation and maintenance expenses for the current year in total and detailed by the EDC's own functional account code or FERC account code as available.

T/D Operation and Maintenance Expenses By FERC Account

O&M Accounts 2010 E	3úd	lget k\$
580 Operation Supervision And Engineering	\$	106.0
581 Load Dispatching		3.3
582 Station Expenses		12.6
583 Overhead Line Expenses		3.2
584 Underground Line Expenses		5.8
586 Meter Expenses		61.7
587 Customer Installation Expenses		0.3
588 Miscellaneous Distribution Expenses		18.2
589 Rents		0.7
593 Maintenance of Overhead Lines		269.4
594 Underground Line Expenses		3.0
596 Maintenance of Street Lighting and Signal Systems		2.4
597 Maintenance of Meters		2.6
599 Joint use		104.4
Total Distribution	\$	593.6

§ 57.195. (b)(11) Budgeted transmission and distribution capital expenditures for the current year in total and detailed by the EDC's own functional account code or FERC account code as available.

T/D Capital Expenditures By FERC Account

Account Code	Capital	010 Budget k\$
70/90 -Various	Electric Distribution Blankets - New Business OH	\$ 282.2
70/90 -Various	Electric Distribution Blankets - System Integrity OH	252.0
	Circuit Reliability Blanket	10.0
	Pole Inspection Blanket	32.4
70-9711	Ground to Sky Tree Trimming	256.0
	Transformer Blankets	49.5
Total Capital Bud	get	\$ 882.1

§ 57.195. (b)(12) Significant changes, if any, to the transmission and distribution inspection and maintenance programs previously submitted to the Commission.

T/D Inspection and Maintenance Programs Significant Changes

Inspection & Maintenance Changes

There were no significant changes to Pike's Inspection and Maintenance programs in 2009, and none planned for 2010.

Appendix I Substation Maintenance and Inspection Program

Item Description:

Examine individual utility substation maintenance programs to validate proper maintenance procedures and verify that maintenance is being performed. Review recent operating data to verify that no adverse trends exist.

Company Program:

The following details the different class inspections and maintenance programs performed by the Substation Operations Department, and their associated time cycles. Intervals vary dependent on equipment type, style and maintenance history.

CLASS #1 INSPECTION - Monthly

- Visual inspection of transformers and oil breakers for oil leaks, oil levels, nitrogen pressure, connections, condition of bushings and Oil Circuit Breaker ("OCB") operating mechanism.
- Visual inspection of battery banks, chargers, control board indicating lights, control house lights, yard lights.
- Visual inspection of minor equipment including Potential Transformers ("PTs"), Current Transformers ("CTs"), Capacitive Coupled Potential Devices ("CCPDs"), disconnect switches and bus connections.
- Visual inspection of all structures, fences and yard surfaces.
- Counter readings taken of OCBs, Gas Circuit Breakers ("GCBs"), reclosers and tap changers.

STATION BATTERY TESTS - Annually

Measure specific gravity and cell voltage. Test with Battery Impedance Testing Equipment. Clean batteries.

FANS, PUMPS, HEATERS AND COMPRESSORS - Annually

Check for proper operation prior to winter for heaters and compressors and prior to summer for fans and pumps.

TRANSFORMER GAS-IN-OIL ANALYSIS - Annually

Take oil sample from each power transformer compartment and analyze for combustible gas content.

DOBLE POWER FACTOR TEST - Every Two - Five Years

Use Doble instrument to measure the integrity of the insulating medium of certain device.

OCB TIMING - Every Three - Ten Years

Check the time it takes for each operation of certain breakers.

RELAY MAINTENANCE - Every Four Years, Electromechanical;

Six Years Microprocessor Based, With Self-Check.

Clean, test and calibrate as required all relays involved in protective relay schemes. After testing and calibrating perform a trip test to verify proper operation.

CLASS #3 INSPECTION - Every two - five Years

The Class #3 inspection on transformers is to include, but is not limited to the following items:

- 1. Test oil;
- 2. TTR Test, meggar test;
- 3. Inspect all connectors, bushings;
- 4. Inspect for leaks (oil nitrogen);
- 5. Check CT connections, alarm systems on banks; and
- 6. Doble Power Factor Test.

Transformers With Load Tap Changers

- 7. Test Oil in LTC cabinet; and
- 8. Test LTC control for proper operation.

The Class #3 inspection on OCB's is to include, but is not limited to the following items:

- 1. Test Oil;
- 2. DLRO (Ductor Test) before and after;
- 3. Inspect and clean control cabinet;
- 4. Inspect and clean Pneumatic-Hydraulic or spring charged operating system; and
- 5. Operational Test.

The Class #3 inspection on reclosers is to include, but is not limited to the following items:

- 1. Test Oil;
- 2. DLRO (Ductor Test) before and after;
- 3. Control cabinet clean, checkout and operational test; and

Reclosers With Vacuum Bottles

4. Hi-Pot test.

The Class #3 inspection on ACB's is to include, but is not limited to the following items:

- 1. DLRO (Ductor Test) before and after;
- 2. Inspect all contacts (action to be taken, if needed);
- 3. Inspect and test all Micro and Aux. contacts (close and trip circuit); and
- 4. Operational Testing

CLASS #4 INSPECTION - Various intervals (four - twelve years or as necessitated by Class #3 Inspection results) dependent on equipment type, style and maintenance history.

The Class #4 inspection consists of a thorough inspection and testing of the apparatus listed below.

The Class #4 also includes all inspections included in a Class #3.

Transformers With Load Tap Changer

- 6. Drain oil from LTC cabinet, inspect all contacts;
- 7. Inspect and tighten all connections;
- 8. Clean complete LTC cabinet;
- 9. Filter or replace oil; and
- 10. Test LTC control for proper operation.

The Class #4 inspection on OCB's is to include, but is not limited to the following items:

- 1. DLRO (Ductor test) before and after;
- 2. Drop tanks inspect and tighten all connections. Clean all parts and tanks;
- 3. Test and filter or replace oil;
- 4. Inspect and clean control cabinet;
- 5. Inspect and clean Pneumatic-Hydraulic or spring charged operating systems; and
- 6. Operational Test.

The Class #4 inspection on reclosers is to include, but is not limited to the following items:

- 1. Drop tank (filter or replace oil);
- 2. Inspect all contacts repair or replace (depending on the condition);
- 3. Check and tighten all connections;
- 4. Control cabinet, clean and checkout;
- 5. DLRO (Ductor Test) before and after; and
- 6. Operational Test.

Recloser With Vacuum Bottles

7. Hi-Pot test.

The Class #4 inspection on ACB's is to include, but is not limited to the following items:

- 1. DLRO (Ductor Test) before and after;
- 2. Inspect all contacts clean and put protective grease coating on;
- 3. Inspect and clean all ARC chutes;
- 4. Inspect and test all Micro and Aux. contacts (close and trip circuit);
- 5. Check and tighten all connections; and
- 6. Operational Test.

References:

All inspection and maintenance records are retained as a hard copy for one year at O&R's main Operating Division headquarters. These records are also retained electronically on a work management system. Repeated callouts and equipment failures that show an abnormal trend are flagged by the work management system.

The Doble power factor testing, transformer gas in oil analysis, and infrared inspection records are stored electronically on the Substation Information System ("SIS"). OCB timing maintenance records are presently kept on a separate electronic storage system that is provided with the test equipment.

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