Duquesne Light
Our Energy...Your Power

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April 30, 2013

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APR 30 2013
PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

Ms. Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120-0200

Re: Duquesne Light Company 2012 Annual Reliability Report

L-00030161

Dear Secretary Chiavetta:

Enclosed for filing please find Duquesne Light Company's Annual Electric Reliability Report for the calendar year 2012, as required by 52 Pa. Code §57.195.

If you have any questions regarding the information provided, please contact me at 412-393-3662 or vedwards@duqlight.com.

Sincerely,

Vernon J. Edwards
Manager, Regulatory Affairs

Enclosures

cc: Bureau of Technical Utility Services
Office of Consumer Advocate
Office of Small Business Advocate

Duquesne Light
Our Energy...Your Power

RECEIVED

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PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

2012 Annual Electric Reliability Report

to the

Pennsylvania Public Utility Commission

Duquesne Light Company
411 Seventh Avenue
Pittsburgh, PA 15219

April 30, 2013

DUQUESNE LIGHT COMPANY
2012 ANNUAL ELECTRIC RELIABILITY REPORT

Filed April 30, 2013

57.195 Reporting Requirements

(a)(2) The name, title, telephone number and e-mail address of the persons who have knowledge of the matters, and can respond to inquiries.

Ken Kallis – Manager, Asset Management
(412) 393-8613, kkallis@duqlight.com

Vernon J. Edwards – Manager, Regulatory Affairs
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(b)(1) An overall current assessment of the state of the system reliability in the electric distribution company's service territory including a discussion of the electric distribution company's current programs and procedures for providing reliable electric service.

Duquesne Light Company's service territory covers approximately 817 square miles, with a well-developed distribution system throughout. Electric service reliability remains very consistent across the service territory. The combination of an effective outage restoration process and significant distribution automation allows the Company to quickly restore power to large numbers of customers in outage situations.

Achieving outstanding performance in system reliability continues to be one of Duquesne's most important long-term objectives. The Asset Management Group performs ongoing analysis of reliability indices, root cause analysis of outages, and tracking and monitoring of other performance measures. This is a long-term process to optimize reliability and to identify improvement opportunities. This includes making recommendations for capital projects such as circuit rehabilitation, new substations and distribution circuits. It also includes implementation of new advanced protection and coordination schemes on the distribution system that better localize customer outages and reduce momentary operations.

Duquesne Light Company continues its Emergent Work Process, which is used to identify problems, set priorities, and resolve reliability issues as quickly as possible. Each day, field personnel perform field inspections and any abnormalities are logged into a database. This database is reviewed every two weeks by the Emergent Work Team and any high priority problems are identified and a course of action is determined. Analysis at the device level is used to identify small areas where customers have experienced multiple outages. System level and even circuit level indices may mask these isolated problems. This is the short-term process for real-time analysis and reliability improvement.

Scheduled preventative and predictive maintenance activities continue to reduce the potential for future service interruptions. Corrective maintenance is prioritized with the objective to reduce and eliminate any backlog in the most cost-efficient manner.

Several capital budget projects target distribution reliability improvements, including pole replacement, substation rehabilitation, circuit load relief and voltage improvement, URD rehabilitation, circuit rearrangement and installation of additional automated remotely controlled pole top devices.

Specific programs, procedures and ongoing maintenance activities that support Duquesne's commitment to excellent service reliability include:

- An Infrared Inspection Program that systemically identifies circuit and substation problems for remedial action in advance of failure.

- A comprehensive Vegetation Management Program, which is designed to provide long-term line clearance, to deter future growth and to achieve an optimum cycle for trimming. All of the Company's circuits are included in a multi-year Vegetation Management maintenance program. The impact on SAIDI and SAIFI due to tree-related outages continues to trend positively.

- An ongoing long-term Sectionalizer Maintenance and Replacement Program serves to refurbish and maintain reliable operation of all automatic and remote controllable switches on Duquesne's automated distribution system, and to replace those that are no longer operating efficiently.

- For newer distribution devices, a dedicated firmware upgrade program serves to keep devices working more reliably with improved features and functionality. These upgrades often correct problems or weaknesses that utilities have discovered during actual operation.

- A comprehensive Substation Rehabilitation Program targets improvements in delivery system substation facilities including replacement of deteriorated and obsolete transformers, breakers, switches, relays, regulators and other equipment.

- Lateral fusing on 23KV distribution circuits is an ongoing initiative. Installing fuses on single phase and three phase overhead taps reduces the number of customers affected by an outage and improves reliability.

- New distribution substations are being installed between existing major substations to take advantage of transmission reliability, decrease distribution circuit exposure and improve reliability to end users.

- Line maintenance work of various types is regularly performed in order to maintain distribution plant. This work includes replacement of cross arms, arrestors, insulators, and other equipment on the overhead system as well as inspections and remedial work on the underground system.

- Expanded Storm Preparedness Training is conducted each year and Storm Review Meetings are held following major events. These meetings focus on the successes and failures of the most recent emergency service restoration effort. Service restoration process improvements are made as needed to improve response time and effectiveness during the next restoration effort

(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 in order to avoid or minimize the impact of similar events in the future.**

No major events occurred during 2012.

(b)(3) **A table showing the actual values of each of the reliability indices (SAIFI, CAIDI, SAIDI, and if available, MAIFI) for the electric distribution company'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 customer minutes 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 BENCHMARKS AND STANDARDS
Duquesne Light Company
System Performance Measures with Major Events Excluded**

	SAIDI	SAIFI	CAIDI	MAIFI
2010	87	1.09	80	*
2011	99	.93	107	*
2012	79	.67	117	*
3 Year Average	88	.90	101	*
Benchmark	126	1.17	108	NA

*** Sufficient information to calculate MAIFI is unavailable.**

Formulas Used in Calculating the Indices

SAIFI = $\frac{\text{(Total KVA interrupted) - (KVA impact of major events)}}{\text{System Connected KVA}}$

SAIDI = $\frac{\text{(Total KVA-minutes interrupted) - (KVA-minute impact of major events)}}{\text{System Connected KVA}}$

CAIDI = SAIDI/SAIFI

Data used in calculating the indices

2012

Total KVA Interrupted for the Period	4,790,378	KVA
Total KVA-Minutes Interrupted:	560,098,427	KVA-Minutes
System Connected Load as of 12/31/12:	7,120,660	KVA

(b)(3) (Continued)

2011

Total KVA Interrupted for the Period	6,552,567 KVA
Total KVA-Minutes Interrupted	700,283,041 KVA-Minutes
System Connected Load as of 12/31/11:	7,075,537 KVA

2010

Total KVA Interrupted for the Period (excluding 2/5/10, 4/16/10 and 9/22/10 Major Events)	6,828,430 KVA
Total KVA-Minutes Interrupted (excluding 2/5/10, 4/16/10 and 9/22/10 Major Events)	578,862,007 KVA-Minutes
System Connected Load as of 12/31/10:	7,043,377 KVA

(b)(4) **A breakdown and analysis of outage causes during the year being reported on, including the number and percentage of service outages 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.**

January 1, 2012 through December 31, 2012 – No PUC Major Event Exclusions

CAUSE	NO. OF OUTAGES	OUTAGE PERCENTAGE	KVA TOTAL	KVA PERCENTAGE	KVA-MINUTE TOTAL	KVA-MINUTE PERCENTAGE
Storms	557	18%	1,004,910	21%	133,218,133	24%
Trees (Contact)	67	2%	104,135	2%	8,604,491	2%
Trees (Falling)	670	22%	1,254,933	26%	178,128,557	32%
Equipment Failures	842	27%	1,322,075	28%	145,639,255	26%
Overloads	381	12%	288,569	6%	20,583,265	4%
Vehicles	147	5%	329,552	7%	41,083,207	7%
Other	401	14%	486,204	10%	32,841,519	5%
TOTALS	3,065	100%	4,790,378	100%	560,098,427	100%

(b)(5) **A list of remedial efforts taken to date and planned for circuits that have been on the worst performing 5% of circuits list for a year or more.**

Duquesne has no circuits which have been on the worst performing 5% circuit list for a year or more.

(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.

2012 Transmission and Distribution Goals and Objectives

Program Project	Unit of Measurement	Target for Year 2012	YTD Actuals Year 2012	Percent Complete
Communications Goals				
Telecom Battery Maintenance	Batteries	96	96	100%
Overhead Distribution Goals				
Sectionalizer/Recloser Control	Control Units	497	500	101%
Overhead Transmission Goals				
Tower Helicopter Inspections	Number of Towers	500	500	100%
Tower Ground Detail Inspections	Number of Towers	300	327	109%
Substations Goals				
Breaker Maintenance	Breakers	828	830	100%
Transformer Maintenance	Transformers	74	74	100%
Station Battery Maintenance	Batteries	980	978	100%
Station Relay Maintenance	Relays	2,783	2,954	106%
Underground Distribution Goals				
Manhole Inspections	Manholes	750	757	101%
Network Vault Inspections	Network Vault Sites	238	238	100%
Network Protector Inspections	Network Protectors	586	586	100%
Network Transformer Inspections	Network Transformers	586	586	100%
Underground Transmission Goals				
Pressurization and Cathodic Protection Plant Inspection	Work Packages	52	52	100%
Vegetation Management Goals				
Overhead Line Clearance	Circuit Overhead Miles	1,300	1,338	103%

(b)(6) (Continued)

2012 PUC Inspection and Maintenance Program Year-End Variances

Tower Helicopter Inspections:
Additional inspections were performed due to circuit changes while others were performed in an opportunistic fashion (to maximize productivity). This led to a 9% overage.

Station Relay Maintenance:
Some preventive maintenance was performed in conjunction with repairs of related subsystems and other planned outages in order to better utilize our workforce. This efficiency yielded resulted in exceeded goal by 6%.

(b)(7) A comparison of budgeted versus actual transmission and distribution operation and maintenance expenses for the year being reported on. Explanations of any variances shall be included.

Budget Variance Recap – O&M Expenses
For the Twelve Months Ending December 31, 2012
Favorable / (Unfavorable)

	Customer Care	External Affairs	Human Resources	Operations / Operation Services	Technology	General Corporate *	Total
Total Actual	42,155,404	10,185,905	11,945,993	54,741,874	22,769,223	47,821,378	189,619,777
Total Budget	47,611,194	10,910,335	12,987,263	58,027,482	24,505,212	41,048,099	195,089,585
Variance	5,455,790	724,430	1,041,270	3,285,608	1,735,989	(6,773,279)	5,469,808

* Includes Finance, Office of General Counsel and Senior Management Costs

The year to date O&M underspend is due to the timing of spending associated with the Company's energy efficiency surcharge programs partially offset by higher than anticipated bad debt expense and general corporate expenditures.

(b)(8) **A comparison of budgeted versus actual transmission and distribution capital expenditures for the year being reported on. Explanations of any variances shall be included.**

Budget Variance Recap – Capital
For the Twelve Months Ending December 31, 2012
Favorable / (Unfavorable)

	Customer Care	External Affairs	Human Resources	*Operations /* Operation Services	Technology	General Corporate *	Total
Total Actual	2,196,753	0	9,557,664	118,450,083	27,573,774	35,887,900	193,666,174
Total Budget	2,523,120	0	13,223,600	118,722,764	23,958,335	29,167,830	187,595,649
Variance	326,367	0	3,665,936	272,681	(3,615,439)	(6,720,070)	(6,070,525)

* Includes Finance, Office of General Counsel and Senior Management Costs

The year to date Capital under spend is due to the timing of several capital improvement projects coupled with lower than historical year to date costs associated with customer work and restoration. Additionally, there been no significant storms in 2013. The timing of corrective repairs and programmatic support work also contributed to the under spend.

(b)(9) **Quantified transmission and distribution inspection and maintenance goals/objectives for the current calendar year detailed by system area (i.e., transmission, substation, and distribution).**

2013 Transmission and Distribution Goals and Objectives

Program *Project*	Unit of *Measurement*	Target for Year *2013*
Communications Goals		
Communication Battery Maintenance	Batteries	96
Overhead Distribution Goals		
Recloser Inspections	Circuits	133
Pole Inspections	Poles	17,689
OH Line Inspections	Circuits	133
OH Transformer Inspections	Circuits	133
Padmount & Submersible Transformer Inspections	Circuits	83
Overhead Transmission Goals		
Tower Helicopter Inspections	Number of Towers	500
Tower Ground Detail Inspections	Number of Towers	300
Substations Goals		
Breaker Maintenance	Breakers	855
Substation Transformer Maintenance	Transformers	71
Station Battery Maintenance	Batteries	960
Station Relay Maintenance	Relays	1,578
Station Inspections	*Sites*	*2,064*
Underground Distribution Goals		
Manhole Inspections	Manholes	750
Network Vault Inspections	Network Vault Sites	238
Network Protector Inspections	Network Protectors	586
Network Transformer Inspections	Network Transformers	586
Underground Transmission Goals		
Pressurization and Cathodic Protection Plant Inspection	Work Packages	52
Vegetation Management Goals		
Overhead Line Clearance	Circuit Overhead Miles	1,300

(b)(10) Budgeted transmission and distribution operation and maintenance expenses for the current year in total and detailed by FERC account.

2013
BUDGET
Favorable / (Unfavorable)

	Customer Care	External Affairs	Human Resources	Operations / Operation Services	Technology	General Corporate *	Total
Total Budget	55,765,583	11,822,859	14,386,709	63,109,333	23,323,905	44,780,351	213,188,740

* Includes Finance, Office of General Counsel and Senior Management Costs

(b)(11) Budgeted transmission and distribution capital expenditures for the current year in total and detailed by FERC account.

2013
BUDGET
Favorable / (Unfavorable)

	Customer Care	External Affairs	Human Resources	Operations / Operation Services	Technology	General Corporate *	Total
Total Budget	2,712,965	0	11,470,657	198,187,100	34,408,069	28,024,304	274,803,095

* Includes Finance, Office of General Counsel and Senior Management Costs

Beginning with this 2012 Annual Reliability Report, and for future reports, Duquesne Light Company is providing more details of its Operating and Maintenance, and Capital budgets and expenditures, by functional area as available.

The Duquesne Light Company 2013 Transmission and Distribution Operating and Maintenance (b)(10) and Transmission and Distribution Capital (b)(11) Budgets and Expenditures consist of the following work elements:

- Restoration of Service costs includes expenses to restore service to customers during storm-related events, and restoration from outages caused by system and component equipment failures.
- Customer Commitment costs includes expenses to satisfy residential, commercial, industrial and governmental initiated work requests.
- System Maintenance costs include expenses for programmed preventive and corrective maintenance work.

(b)(11) (Continued)

- System Improvement costs include expenses incurred to provide load relief in growth areas identified through system assessment, as well as continued targeted replacement of systems and components based on maintenance findings and trended useful life.
- Utility costs required to enhance and maintain systems and processes necessary in support of the utility operations including metering systems, technology development to satisfy hardware and system application needs, transmission and distribution planning, all revenue cycle processes and all Operations support and Administrative and General expenses.

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

On November 1, 2012, pursuant to 52 Pa. Code § 57.198(1), Duquesne Light Company filed, as an addendum to its 3rd Quarter 2012 Reliability Report, three proposed revisions to its Biennial Inspection, Maintenance, Repair and Replacement Plan. The proposed revisions were to (1) combine the two separate benchmark requirements, by county, into a single benchmark requirement; (2) increase the 4 kV recloser benchmark to reflect the actual number of 4 kV reclosers on the Company's distribution system; and (3) update and modify the information contained in the Inspection and Maintenance Plan relating to the "Reference Documents.

Duquesne Light Company has not made any other significant changes to its transmission and distribution inspection and maintenance programs.