

**Vernon J. Edwards**Regulatory Compliance Supervisor

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January 28, 2010

### VIA OVERNIGHT MAIL DELIVERY

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

### RECEIVED

JAN 28 2010

PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU

Re: Duquesne Light Company 2009 Fourth Quarter Reliability Report

Dear Secretary McNulty:

Enclosed for filing is the Fourth Quarter Reliability Report of Duquesne Light Company in accordance with the Commission's Order at L-00030161 entered March 20, 2006. Duquesne is submitting both a public version and a confidential version. The confidential version includes all of the information required by 52 Pa. Code §57.195, is marked "confidential and proprietary" and is enclosed in a sealed envelope.

Duquesne respectfully requests the "confidential and proprietary" version not be made available to the public.

If you have any questions regarding the information provided, please contact me at (412) 393-3662.

Sincerely

Vernon Edwards Regulatory Compliance Supervisor

### **Enclosures**

c: Mr. W, Williams – Bureau of CEEP

Mr. I. A. Popowsky - Office of Consumer Advocate

Mr. W. R. Lloyd, Jr. - Office of Small Business Advocate

Mr. D. Gill – Bureau of CEEP

Mr. B. J. Loper - Bureau of CEEP

### DUQUESNE LIGHT COMPANY 2009 Fourth Quarter Reliability Report

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Filed January 28, 2010

JAN 28 2013

PA PUBLIC HITLITY COMMISSION SECRETARY S BUREAU

### 57.195 Reporting Requirements

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

Pamela Niehaus - Manager, Engineering Services (412) 393-8446, pniehaus@duqlight.com

Gary Jack - Manager, Governmental Affairs (412) 393-1541, gjack@duqlight.com

(e)(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.

No major events occurred during the Fourth Quarter 2009.

(e)(2) Rolling 12-month reliability index values (SAIFI, CAIDI, SAIDI, and if available, MAIFI) for the electric distribution company'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.

## RELIABILITY BENCHMARKS AND STANDARDS Duquesne Light Company

System Performance Measures with Major Events Excluded

Entire System							
	SAIDI	SAIFI	CAIDI	MAIFI			
Benchmark	126	1.17	108	*			
12 Month Standard	182	1.40	130	*			
2009 4Q (Rolling 12 mo)	82	.97	85	*			

<sup>\*</sup> Sufficient information to calculate MAIFI is unavailable.

### Formulas used in calculating the indices

SAIFI = (Total KVA interrupted) - (KVA impact of major events)

System Connected KVA

SAIDI = (Total KVA-minutes interrupted) - (KVA-minute impact of major events)

System Connected KVA

CAIDI = SAIDI/SAIFI

### Data used in calculating the indices

Total KVA Interrupted for the Period

(Excluding 2/11/09 Major Event): 6,828,430 KVA

Total KVA-Minutes Interrupted:

(Excluding 2/11/09 Major Event): 578,862,007 KVA-Minutes

System Connected Load as of 12/31/09: 7,043,377 KVA

February 11, 2009 Major Event: 903,714 KVA (13% of System Load)

291,170,402 KVA-Minutes

(e)(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 electric distribution company defines its worst performing circuits shall be included.

Circuits are evaluated based on a rolling twelve-month count of lockouts of protective devices (circuit breakers, sectionalizers and line reclosers). Circuits that experience four or more lockouts for a device in each quarterly rolling twelve-month period are identified and reported. Customer surveys show a significant drop in satisfaction when customers experience four or more interruptions in a year, and that threshold was therefore used as a basis for this evaluation method.

The list is ranked first by the date of the most recent outage, with a secondary sort based on number of lockouts. This places a higher priority on circuits experiencing problems in the most recent quarter. Circuits that have not seen recent outages fall to a lower priority, but remain on the list for monitoring.

Circuits that appear on the list for more than a year will be targeted for remediation based on a review of outage records for root cause identification, field evaluations, and engineering analysis. Project scopes developed as a result of this analysis will be incorporated into the company's Work Plan for engineering, design and construction.

This circuit analysis method provides timely review by in-house staff. It provides a true representation of the dynamic nature of Duquesne's distribution system. The threshold of four lockouts may produce a result greater or less than 5% of the total circuits in the system. Reports will be issued on all circuits that violate the four-lockout threshold, even if the total is greater than 5% of the number of circuits on the system.

See Attachment A for table of circuit reliability values and Service Centers associated with each circuit.

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

**Fourth Quarter Rolling 12 Months** 

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Rank	Circuit	Name	Service Center	Remedial Actions Planned or Taken:
1	4255	Grant	Preble	DLC continued to monitor this circuit since the outage on September 19, 2009. There have been no new lockouts since the 3 <sup>rd</sup> Quarter.
2	4067	Schenley	Penn Hills	DLC continued to monitor this circuit since the September 11, 2009 outage that was due to a motor vehicle accident. There have been no new lockouts since the 3 <sup>rd</sup> Quarter.
3	4253	Grant	Preble	This circuit continued to be monitored. Problems that were found from the infrared testing of this station were repaired on July 24, 2009.  There have been no new lockouts since the 2 <sup>nd</sup> Quarter.

For reference, the following chart shows the 3<sup>rd</sup> Quarter 2009 rolling 12-month worst circuits and action forecasted for remediation with updates.

Third Quarter Rolling 12 Months

Rank	Circuit	Name	Service Center	Remedial Actions Planned or Taken
1	4255	Grant	Preble	Outage on September 19, 2009 was due to a cable failure, which has been repaired. For all other outages no cause was found but could have been the result of equipment problems found during infrared testing of substation which were repaired on July 24, 2009.
2	4067	Schenley	Penn Hills	DLC experienced a severe lightning storm on June 17-20, 2009 which resulted in two separate failures for this circuit. The last outage on September 11, 2009 was due to a motor vehicle accident. The cables were repaired and we will continue to monitor this circuit.
3	23822	Highland	Penn Hills	Two outages were due to falling trees and two incidents were from tie wire failures. Will infrared test the circuit and make repairs by end of the year. VM will check Frankstown Road for anymore apparent tree issues. Half of KVA-minutes outages was due to June 17, 2009 storm. 4Q Update: No new lockouts since August 4, 2009. VM checked Frankstown Road and found no new issues. Infrared Test Report reviewed in 2009. Six items are scheduled for repair in 2010.
4	23640	Midland	Raccoon	Three of the four lockouts occurred with the June 17, 2009 storm. Will monitor this circuit. 4Q Update: No new lockouts since June 2009.
5	4253	Grant	Preble	DLC experienced a severe lightning storm on June 17-20, 2009 which caused breaker to open, then a transformer failure on June 20, 2009 caused breaker to open twice. Problems found from infrared of station were repaired on July 24, 2009. No outages since last quarter for this circuit.

(e)(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.

January 1, 2009 through December 31, 2009 – One PUC Major Event Exclusion

		***			KVA-	1 0		
,	NO. OF	OUTAGE	KVA.	, KVA .	MINUTE	KVA-MINUTE		
CAUSE	OUTAGES	PERCENTAGE	TOTAL	PERCENTAGE	TOTAL	PERCENTAGE		
Storms	349	15%	966,439	14%	160,506,695	28%		
Trees (Contact)	97	4%	45,467	1%	3,755,454	1%		
Trees (Falling)	379	16%	1,307,493	19%	102,928,422	18%		
Equipment Failures	780	33%	2,457,846	36%	202,953,120	35%		
Overloads	160	7%	220,886	3%	20,281,348	3%		
Vehicles	165	7%	555,815	8%	46,307,186	8%		
Other	443	18%	1,274,484	19%	42,129,782	7%		
TOTALS	2,373	100%	6,828,430	100%	578,862,007	100%		

### (e)(6) Quarterly and year-to-date information on progress toward meeting transmission and distribution inspection and maintenance goals/ objectives.

<b>Program</b> Project	Unit of Measurement	Target for 2009 4Q	Actual for 2009 4Q	Percent Complete	Targets for Year 2009	YTD Actuals Year 2009	Percent Complete
Communications Goals	1						
Telecom Battery Maintenance	Batteries	28	72	257%	112	168	150%
Microwave Radio Maintenance	Radio Units	0	0	N/A	0	0	N/A
Overhead Distribution Goals							
Sectionalizer/Recloser Control	Control Units	0	0	N/A	120	141	118%
Sectionalizer Upper Switch	Switches	0	. 5	, N/A	205	207	101%
Overhead Transmission Goals							
Tower Helicopter Inspections	Number of Towers	0	0	N/A	500	545	109%
Tower Ground Detail Inspections	Number of Towers	50	0	0%	300	355	118%
Substations Goals							
Breaker Maintenance	Breakers	170	152	89%	670	696	104%
Transformer Maintenance	Transformers	7	10	143%	65	68	105%
Station Battery Maintenance	Batteries	268	306	114%	1,072	1,083	101%
Station Relay Maintenance	Relays	520	844	162%	1,910	2,352	123%
Underground Distribution Goals							
Manhole Inspections	Manholes	187	122	65%	750	759	101%
Network Vault Inspections	Network Units	137	136	99%	550	557	101%
Network Protector Inspections	Protectors	75	35	47%	300	447	149%
Underground Transmission Goals							
Pressurization and Cathodic			•		•	•	
Protection Plant Inspection	Work Packages	13	14	108%	52	52	100%
Vegetation Management Goals							
Overhead Line Clearance	Circuit Overhead Miles	392	395	101%	1,410	1,422	101%
	Total Units	1,847	2,091	113%	8,016	8,852	110%

## (e)(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.

Program	2009 Budget	4 <sup>th</sup> Qtr. Actual	4 <sup>th</sup> Qtr. Budget	YTD Actual	YTD Budget
OPERATIONS AND BUSINES	S SUPPORT	*			
Operations	\$29,596,536	\$5,952,588	\$6,917,530	\$26,843,436	\$29,596,536
Business Support	\$49,975,216	\$8,348,417	\$14,380,752	\$35,406,819	\$49,975,216
Program Totals	\$79,571,752	\$14,301,005	\$21,298,282	\$62,250,255	\$79,571,752

Note: Financial records presented in this report accurately reflect budget and expense information available as of the date the report was created, but prior to the final financial closing. Changes to these reported numbers may occur.

## (e)(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.

Program	2009 Budget	4 <sup>th</sup> Qtr. Actual	4 <sup>th</sup> Qtr. Budget	YTD Actual	YTD 造化 化 Budget	
OPERATIONS AND BUSINESS	S SUPPORT		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	The second second	· · · · · · · · · · · · · · · · · · ·	
Operations	\$138,875,077	\$52,369,152	\$28,916,073	\$153,518,245	\$138,875,077	
Business Support	\$48,258,119	\$15,261,524	\$12,158,826	\$48,853,177	\$48,258,119	
Program Totals	\$187,133,196	**************************************	\$41,074,899	\$202,371,422	\$187,133,196	

The Duquesne Light Company's Transmission and Distribution Operating and Maintenance (e)(7)) and Transmission and Distribution Capital (e)(8) Budgets and Expenditures consist of two major functional work categories, classified as "Operations" and "Business Support".

#### Operations expenses include 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.
- 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.

### **Business Support expenses include the following work elements:**

Business Support costs are required to enhance and maintain systems and processes necessary in support of the core business and Operations including metering systems, technology development to satisfy hardware and system application needs, transmission and distribution planning and all revenue cycle processes.

## (e)(9) <u>Dedicated staffing levels for transmission and distribution operation and maintenance at the end of the quarter, in total and by specific category (e.g. linemen, technician, and electrician).</u>

1	Electronic Technician	Telecom
10	Sr. Electronic Tech	
7	Telecom Splicer/Trouble	
1	Test Table Tech	
25	Total	
24	Electrical Equipment Tech	Substation
25	Protection & Control Tech	
9	Sr. Elec. Equipment Tech	
58	Total	
2	Apprentice T&D	Underground
0	Driver Helper	
5	Journey UG Inspector	
16	Journey UG Splicer	
6	Sr. UG Splicer	
13	UG Cable Tester/Installer	
7	UG Mechanic	
9	Network Operator	
58		
	Total	
<b>4</b> 7	Apprentice T&D	Overhead
<b>4</b> 7.	Apprentice T&D Rigger Specialist	Overhead
47 4 1	Apprentice T&D Rigger Specialist Equipment Attendant	Overhead
<b>4</b> 7.	Apprentice T&D Rigger Specialist Equipment Attendant Equipment Material Handler	Overhead
47 4 1 6 4	Apprentice T&D Rigger Specialist Equipment Attendant Equipment Material Handler Field Inspector	Overhead
47 4 1 6	Apprentice T&D Rigger Specialist Equipment Attendant Equipment Material Handler	Overhead
47 4 1 6 4 99	Apprentice T&D Rigger Specialist Equipment Attendant Equipment Material Handler Field Inspector	Overhead
47 4 1 6 4 99 0	Apprentice T&D Rigger Specialist Equipment Attendant Equipment Material Handler Field Inspector Journey Lineworker	Overhead
47 4 1 6 4 99	Apprentice T&D Rigger Specialist Equipment Attendant Equipment Material Handler Field Inspector Journey Lineworker Lineworker Helper	Overhead
47 4 1 6 4 99 0	Apprentice T&D Rigger Specialist Equipment Attendant Equipment Material Handler Field Inspector Journey Lineworker Lineworker Helper Rigger Crew Leader	Overhead
47 4 1 6 4 99 0	Apprentice T&D Rigger Specialist Equipment Attendant Equipment Material Handler Field Inspector Journey Lineworker Lineworker Helper Rigger Crew Leader Service Crew Leader	Overhead
47 4 1 6 4 99 0 2 5	Apprentice T&D Rigger Specialist Equipment Attendant Equipment Material Handler Field Inspector Journey Lineworker Lineworker Helper Rigger Crew Leader Service Crew Leader Shop Mechanic 2 Rigger	Overhead
47 4 1 6 4 99 0 2 5 1	Apprentice T&D Rigger Specialist Equipment Attendant Equipment Material Handler Field Inspector Journey Lineworker Lineworker Helper Rigger Crew Leader Service Crew Leader Shop Mechanic 2 Rigger Yard Group Leader	Overhead
47 4 1 6 4 99 0 2 5 1 4	Apprentice T&D Rigger Specialist Equipment Attendant Equipment Material Handler Field Inspector Journey Lineworker Lineworker Helper Rigger Crew Leader Service Crew Leader Shop Mechanic 2 Rigger Yard Group Leader Sr. Lineworker	Overhead  Street Light Changers

### (e)(9) (Continued)

Parinasias	Drafter	
Engineering	General Clerk - Grad	3 10
	General Technician	2
	GIS Technician B	5
	Head File Record Clerk	1
	Survey Instrument	3
	Right of Way Agent A	4
	Sr. Technician	4
	T&D Mobile Worker	4
	Technician A	1
	Technician B	11
	Technician C	1
	Test Technician, Mobile	3
	Total	<u>5</u> 2
Service Center Technician	Sr. Technician	10
	Technician	7
	Total	<u> 1</u> 7
Traveling Operator/Troubleshooter	Senior Operator	30
	Traveling Operator	1
	Traveling Operator 1/C	8
	Troubleshooter	15
	Total	54
Load Dispatcher	Total	10
Meter Technician	Meter Technician	<u>1</u> 6
	Sr. Meter Technician	19
	Total	<u>35</u>
Meter Reader	Totál	13
Customer Service Representatives	Autodialing Operator	. 9
	Customer Service Rep	97
	Word Processing Clerk	2
	Sr. Customer Service	3
	Telephone Switchboard	1
	Total	112
Admin/Supervisory/Mgmt	Total	371
	TOTAL	1,043

(e)(11) Monthly call-out acceptance rate for transmission and distribution maintenance workers presented in terms of both the percentage of accepted call-outs and the amount of time it takes the EDC to obtain the necessary personnel. A brief description of the EDC's call-out procedure should be included when appropriate.

Call-Out Acceptance Rate - 2009

Month	Accepts	Refusals	Total	Percentage
October	126	251	377	33%
November	63	64	127	50%
December	149	203	352	42%

Amount of Time it Takes to Obtain the Necessary Personnel – 2009

Month	Total Callout Events	Necessary Personnel Accepting	E	ige Minutes alling Event	Average Minutes to Obtain Necessary Personnel		
October	44	126	28.1	1,236/44	9.8	1,236/126	
November	23	63	9.1	209/23	3.3	209/63	
December	52	149	12.5	652/52	4.4	652/149	
4 <sup>th</sup> Quarter YTD	119	338	17.6	2,097/119	6.2	2,097/338	
YTD	642	1,710	15.8	10,160/642	5.9	10,160/1,710	

The numerator in the above equations equals the total number of minutes all of the callouts took during the given month/quarter/year. The denominator in the above equations equals the total number of callout events or the total number of workers accepting during the given month/quarter/year.

During the month of October, on average, it took Duquesne Light, 9.8 minutes, per worker, to obtain 126 accepts during the 44 callouts. Subsequently, it took Duquesne Light, on average, 28.1 total minutes to obtain the necessary personnel for each of its 44 callouts.

### **ATTACHMENT A**

(e)(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.

	Circuit	Name	Service	Device	Lockouts	Connected KVA	Last Outage	Total KVA . « Minutes »	Total KVA	SAIDI	SAIFI	CAIDI
	4255	Grant	Preble	Breaker	4	325	9/19/09	370,121	1,863	1139	5.73	199
Į	4067	Schenley	Penn Hills	Breaker	4	1,602	9/11/09	2,403,528	7,680	1500	4.79	313
	4253	Grant	Preble	Breaker	5	3.095	6/20/09	3,332,760	16,966	1077	5.48	196

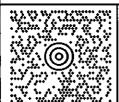
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1 OF 1

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