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Gary A. Jack Assistant General Counsel

Dear Secretary Chiavetta:

November 1, 2010

# RECEIVED

**Duquesne Light Company** 

NOV 1 - 2010

PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU

### VIA OVERNIGHT MAIL DELIVERY

Ms. Rosemary Chiavetta, Secretary Pennsylvania Public Utility Commission P.O. Box 3265 Harrisburg, Pennsylvania 17105-3265

Enclosed for filing is the Third 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 [all information except subsection (e)(10)] 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.

2010 Third Quarter Reliability Report

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.

Sincerely

Gary A. Jack

Assistant General Counsel

#### **Enclosures**

c (Public Version):

Mr. W. Williams - Bureau of CEEP

Mr. D. Gill - Bureau of CEEP

Mr. B. J. Loper - Bureau of CEEP

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

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

### DUQUESNE LIGHT COMPANY 2010 Third Quarter Reliability Report

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#### 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.

#### Major Event September 22, 2010

At approximately 1600 hours on Wednesday, September 22, 2010, severe thunderstorms with damaging lightning, rain and winds gusting to 68 mph, moved through Duquesne Light's service area in Allegheny and Beaver counties. This storm caused extensive damage to our infrastructure, including downed power lines and broken poles. A significant amount of damage, due to fallen trees, occurred in the South Hills section of Allegheny County. The National Weather Service had issued a severe thunderstorm warning for our area.

82,125 customers were affected throughout the course of this storm from a total of approximately 580,000 customers in our service territory. At the peak of this storm, 52,000 customers experienced service interruptions.

Restoration for the last customer affected by this storm was at noon on Sunday, September 26, 2010.

(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	*					
2010 3Q (Rolling 12 mo)	97	1.13	86	*					

<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 3 Major Events - 2/5/10, 4/16/10 & 9/22/10): 7,998,507 KVA

Total KVA-Minutes Interrupted:

(Excluding 3 Major Events – 2/5/10, 4/16/10 & 9/22/10): 684,332,628 KVA-Minutes

System Connected Load as of 2/5/10: 7,050,027 KVA

> February 5, 2010 Major Event: 1,562,210 KVA (22% of System Load)

> > 1.193.717.350 KVA-Minutes

System Connected Load as of 4/16/10: 7,050,027 KVA

> April 16, 2010 Major Event: 837,830 KVA (12% of System Load)

> > 291,711,930 KVA-Minutes

System Connected Load as of 9/22/10:

7.050.027 KVA

September 22, 2010 Major Event: 985,497 KVA (14% of System Load)

479,093,870 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)

Third Quarter Rolling 12 Months

HIIIa	Quarte	n Koming i		
Rank	Circuit	Name	Service Center	Remedial Actions Planned or Taken
1	23783	Valley	Raccoon	Outages due to stepdown transformers. Stepdowns were replaced. Will review for overload by end of 4 <sup>th</sup> Quarter and plan remediation for 2011 if needed.
2	23733	Universal	Penn Hills	Various equipment failures. Will infrared circuit by end of 4 <sup>th</sup> Quarter and plan for remediation in 2011 if needed.
3	23630	Sewickley	Raccoon	Outages related to falling trees. VM to review circuit by end of 4 <sup>th</sup> Quarter with remediation planned for 2011.
4	23700	North	Edison	Circuit was reviewed for overloads after 2 <sup>nd</sup> Quarter 2010 and none were found. No new outages since July 2010. VM reviewed circuit and resolved minor issues before end of August 2010. Will continue to monitor circuit.
5	23950	Wilkinsburg	Penn Hills	Various equipment failures. Infrared of circuit completed on August 19, 2010. Remediation of identified problems by end of 4 <sup>th</sup> Quarter 2010.
6	23935	Eastwood	Penn Hills	Outages due to falling trees and equipment failures. Infrared completed on September 20, 2010 with remediation to be completed by 4 <sup>th</sup> Quarter 2010. VM scheduled maintenance to be completed in 2011.
7	23921	Logans Ferry	Penn Hills	Outages due to falling trees and equipment failures. Will infrared circuit by end of 4 <sup>th</sup> Quarter 2010 and plan remediation in 2011. VM scheduled maintenance to be completed in 2011.
8	23870	Mt. Nebo	Raccoon	Outages due to falling trees. VM to reviewed circuit and resolved tree issues found at that time. VM work completed before end of August 2010.
9	23610	Findlay	Raccoon	Infrared of circuit completed in 2 <sup>nd</sup> Quarter. Remediation of circuit issues due to infrared will be completed by end of 4 <sup>th</sup> quarter 2010. VM issues resolved before August 2010.
10	23635	Ambridge	Raccoon	This circuit is scheduled to be relieved of load when the Edgeworth Project is completed, which will improve the reliability of this circuit.

For reference, the following chart shows the 2<sup>nd</sup> Quarter 2010 rolling 12-month worst circuits and action forecasted for remediation with updates.

Second Quarter Rolling 12 Months

Rank	Circuit	Name	Service Center	Remedial Actions Planned or Taken
1	23716	Pine Creek	Edison	Majority of outages are as a result of falling trees during storm conditions. Vehicle accident also an issue on this circuit during this time frame. No action needed at this time, but will continue to monitor.
2	23700	North	Edison	Outages due to falling trees and overloads. VM to review circuit for tree issues and Engineering to review loads to correct fuse and transformer issues.
3	23935	Eastwood	Penn Hills	Engineering to Infrared circuit to locate poor performing equipment by the end of the 3rd Quarter.
4	23921	Logans Ferry	Penn Hills	Infrared study done in 2009 due to outages. Repairs based on infrared report completed in March 2010. During the June 2 storm, other outages occurred and new action will be taken along with continuing to monitor the circuit.
5	23950	Wilkinsburg	Penn Hills	Engineering to infrared circuit to locate poor performing equipment by the end of the 3rd Quarter.
6	23870	Mt. Nebo	Raccoon	Outages due to falling trees. VM reviewed circuit in the field during the 2 <sup>nd</sup> Quarter 2010 and will be developing a mitigation plan for this circuit during the 3 <sup>rd</sup> Quarter.
7	23610	Findlay	Raccoon	Outages due to trees and equipment failures. Infrared circuit completed July 1, 2010 with repairs to be completed by end of 3rd Quarter to improve equipment failures. Westbury URD being rebuilt this year as well.
8	23635	Ambridge	Raccoon	This circuit is scheduled to be relieved of load when the Edgeworth Project is completed, which will improve the reliability of 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.

October 1, 2009 through September 30, 2010 - Three PUC Major Event Exclusions

CAUSE	NO. OF OUTAGES	OUTAGE PERCENTAGE	KVA TOŤAL	KVA PERCENTAGE	KVA- MINUTE TOTAL	KVA-MINUTE PERCENTAGE
Storms	433	14%	1,115,290	14%	168,149,465	25%
Trees (Contact)	79	2%	144,995	2%	17,631,321	3%
Trees (Falling)	572	18%	1,525,077	19%	152,722,622	22%
Equipment Failures	954	30%	2,805,225	35%	221,124,136	32%
Overloads	451	14%	422,527	5%	22,666,239	3%
Vehicles	154	5%	445,257	6%	40,788,388	6%
Other	548	17%	1,540,136	19%	61,250,457	9%
TOTALS	3,191	100%	7,998,507	100%	684,332,628	100%

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

						YTD	
Program	Unit of	Target for	Actual for	Percent	Targets for	Actuals	Percer
Project	Measurement	2010 3Q	2010 3Q	Complete	Year 2010	Year 2010	Complet
Communications Goals					_		
Telecom Battery Maintenance	Batteries	23	23	100%	92	69	759
Overhead Distribution Goals		·					
Sectionalizer/Recloser Control	Control Units	10	0	0%	82	117	1439
Sectionalizer Upper Switch	Switches	_ 0	0	N/A	0	0	N/.
Overhead Transmission Goals							
Tower Helicopter Inspections	Number of Towers	0	0	N/A	500	537	1079
Tower Ground Detail Inspections	Number of Towers	125	187	150%	300	338	113
Substations Goals							
Breaker Maintenance	Breakers	200	322	161%	756	540	71
Transformer Maintenance	Transformers	3	26	867%	65	46	71
Station Battery Maintenance	Batteries	261	251	96%	1,044	777	74
Station Relay Maintenance	Relays	520	588	113%	1,910	1,609 -	84
Underground Distribution Goals							
Manhole Inspections	Manholes	75	250	333%	750	552	74
Network Vault Inspections	Network Units	55	108	196%	550	430	78
Network Protector Inspections	Protectors	30	90	300%	300	420	140
Underground Transmission Goals							
Pressurization and Cathodic		· <del>-</del>					
Protection Plant Inspection	Work Packages	13	90	692%	52	110	212
Vegetation Management Goals							
Overhead Line Clearance	Circuit Overhead Miles	393	428	109%	1,410	1,185	84
	Total Units	1,708	2,363	138%	7,811	6,730	86

# (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.

Operating and Maintenance	2010	3 <sup>rd</sup> Qtr.	3 <sup>rd</sup> Qtr.	YTD	YTD
	Budget	Actual	Budget	Actual	Budget
Total	\$189,663,301	\$48,693,602	\$49;665,241	\$133,441,538	\$141,160,458

# (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.

Capital	2010	3 <sup>rd</sup> Qtr.	3 <sup>rd</sup> Qtr.	YTD	YTD
	Budget	Actual	Budget	Actual	Budget
Total	\$274,763,201	\$68,672,863	\$62,879,865	\$178,729,026	\$199,153,526

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 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.
- 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.

# (e)(9) 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).

7	Electronic Technician	Telecom
11	Sr. Electronic Tech	
7	Telecom Splicer/Trouble	
0	Test Table Tech	
25	Total	
25	Electrical Equipment Tech	Substation
27	Protection & Control Tech	
10	Sr. Elec. Equipment Tech	
62	Total	
8	Journey Apprentice	Underground
0	Driver Helper	
4	UG Inspector	
12	Journey UG Splicer	
3	Sr. UG Splicer	
11	UG Cable Tester/Installer	
7	UG Mechanic	
10	Network Operator	
55	Total	
45	Apprentice T&D	Overhead
3	Rigger Specialist	
1	Equipment Attendant	
7	Equipment Material Handler	
4	Field Inspector	
97	Journey Lineworker	
0	Lineworker Helper	
2	Rigger Crew Leader	
4	Service Crew Leader	
3	Shop Mechanic 2 Rigger	
4	Yard Group Leader	
59	Sr. Lineworker	
229		
6	Total	Street Light Changers
1	Total	Mobile Worker
1		Mobile Worker

## (e)(9) (Continued)

Engineering	Drafter	2
	General Clerk - Grad	10
	General Technician	0
	GIS Technician B	6
	Head File Record Clerk	1
	Survey Instrument	3
	Right of Way Agent A	4
	Sr. Technician	4
	T&D Mobile Worker	3
	Technician A	2
	Technician B	9
	Technician C	4
	Test Technician, Mobile	4
	Total	52
Service Center Technician	Sr. Technician	7
	Technician	9
	Total	16
Traveling Operator/Troubleshooter	Senior Operator	29
	Traveling Operator	9
	Traveling Operator 1/C	0
	Troubleshooter	16
	Total	54
Load Dispatcher	Total	11
Meter Technician	Meter Technician	18
	Sr. Meter Technician	18
	Total	36
Meter Reader	Total	13
Customer Service Representatives	Autodialing Operator	10
	Customer Service Rep	90
	Word Processing Clerk	2
	Sr. Customer Service	3
	Telephone Switchboard	0
	Total	105
Admin/Supervisory/Mgmt	Total	375
	TOTAL	1,040
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## (e)(10) Quarterly and year-to-date information on contractor hours and dollars for transmission and distribution operation and maintenance.

Confidential Information - Submitted in Confidential and Proprietary Version of Report

(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 - 3<sup>rd</sup> Quarter 2010

Month	Accepts	Refusals	Total	Percentage
July	269	415	684	39%
August	211	328	539	39%
September	240	223	463	52%

Amount of Time it Takes to Obtain the Necessary Personnel – 3rd Quarter 2010

Month	Total Callout Events	Necessary Personnel Accepting		ige Minutes alling Event	Obta	ge Minutes to in Necessary Personnel
July	98	269	13.4	1,313/98	4.9	1,313/269
August	70	211	17.0	1,190/70	5.6	1,190/211
September	51	240	14.5	739/51	3.1	739/240
3 <sup>rd</sup> Quarter 2010	219	720	14.8	3,242/219	4.5	3,242/720
YTD	669	2,211	20.5	13,700/669	6.2	13,700/2,211

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.

As an example, during the month of July, on average, it took Duquesne Light, 4.9 minutes, per worker, to obtain 269 accepts during the 98 callouts. It took Duquesne Light, on average, 13.4 total minutes to obtain the necessary personnel for each of its 98 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 Center	Device	Lockout s	Connected KVA	Last Outage	Total KVA- Minutes	Total KVA Interrupted	SAIDI	SAIFI	CAIDI
23783	Valley	Raccoon	Recloser	4	45,098	9/28/10	9,924,179	171,775	220	3.81	_ 58
23733	Universal	Penn Hills	EA11	5	26,095	9/16/10	3,269,004	84,962	125	3.26	38
<u>23</u> 630	Sewickley	Raccoon	WA573	4	38,180	8/14/10	13,208,779	61,198	346	1.60	_216
23700	North	Edison	WA386	5	17,835	7/29/10	10,343,446	137,401	580	7.70	_ 75
23950	Wilkinsburg	Penn Hills	EA205/EA765	6	16,022	7/14/10	12,774,012	96,909	797	6.05	_132
23935	Eastwood	Penn Hills	Breaker	4	21,437	6/9/10	8,126,212	80,835	379	3.77	_101
<u>23</u> 921	Logans Ferry	Penn Hills	EA625	5	27,157	6/6/10	7,426,742	150,572	273	5.54	_ 49
23870	Mt. Nebo	Raccoon	Recloser	4	26,795	6/2/10	8,159,918	86,518	305	3.23	_ 94
<u>23</u> 610	Findlay	Raccoon	WA634	4	25,975	5/28/10	15,029,311	62,157	579	2.39	242
<u>23</u> 635	Ambridge	Raccoon	Breaker	4	38,490	5/18/10	4,878,722	189,122	127	4.91	26





BILLING: P/P

Cost Center: 492



