

Vernon J. Edwards Regulatory Compliance Supervisor 411 Seventh Avenue, MD 16-4 Pittsburgh, PA 15219

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January 28, 2011

#### VIA OVERNIGHT MAIL DELIVERY

Ms. Rosemary Chiavetta, Secretary Pennsylvania Public Utility Commission Commonwealth Keystone Building 400 North Street Harrisburg, Pennsylvania 17120-0200 JAN 28 2011

RECEIVED

PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU

#### Re: Duquesne Light Company 2010 Fourth Quarter Reliability Report

Dear Secretary Chiavetta:

Enclosed for filing is the Fourth Quarter Reliability Report of Duquesne Light Company in accordance with the Commission's Order at 200030161 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.

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,

V J & Dudd

Vernon Edwards Regulatory Compliance Supervisor

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. Lloyd, Jr. - Office of Small Business Advocate

#### DUQUESNE LIGHT COMPANY 2010 Fourth Quarter Reliability Report

#### Filed January 31, 2010

#### 57.195 Reporting Requirements

## (d)(2) <u>The name, title, telephone number and e-mail address of the persons who have</u> 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) <u>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.</u>

No major events occurred during the Fourth Quarter of 2010.



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JAN 28 2011

PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU (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 4Q (Rolling 12 mo)	87	1.09	80	*				

\* 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	9/22/10):	7,640,009 KVA
Total KVA-Minutes Interrupted: (Excluding 3 Major Events – 2/5/10, 4/16/10 &	9/22/10):	611,385,895 KVA-Minutes
System Connected Load as of 2/5/10: February 5, 2010 Major Event:	1,562	,027 KVA ,210 KVA (22% of System Load) ,350 KVA-Minutes
System Connected Load as of 4/16/10: April 16, 2010 Major Event:	837	,027 KVA ,830 KVA (12% of System Load) ,930 KVA-Minutes
System Connected Load as of 9/22/10: September 22, 2010 Major Event:	985	,027 KVA ,497 KVA (14% of System Load) ,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) <u>Specific remedial efforts taken and planned for the worst performing 5% of the circuits as identified in paragraph (3)</u>

Rank	Circuit	Name	Service Center	Remedial Actions Planned or Taken
1	23733	Universal	Penn Hills	Various equipment failures. Infrared of portions of this circuit were completed on October 10, 2010 with no new corrective action needed. Will Infrared rest of circuit by end of 1st Quarter 2011 with remediation of identified problems planned by end of 2nd Quarter 2011.
2	4253	Grant	Preble	All outages caused by cable failures. Cable repaired or replaced during outages. Long-term plan includes the conversion of this station to 23kV.
3	4499	Irwin	Preble	Various equipment, cable, substation breaker and transformer failures. Will infrared station to look for any issues related to the station as last outage involved the substation breaker.
4	23630	Sewickley	Raccoon	Outages related to falling trees. VM reviewed circuit and found no additional issues to remediate. Tree issues resolved when incident occurred.
5	23700	North	Edison	Circuit was reviewed for overloads after 2 <sup>ne</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. No new outages since July 2010. No further action required at this time.
6	23950	Wilkinsburg	Penn Hills	Various equipment failures. Infrared of circuit completed on August 19, 2010. Remediation of identified problems was completed by December 31, 2010. No new outages since 2 <sup>nd</sup> Quarter. No further action required at this time.
7	23610	Findlay	Raccoon	Infrared of circuit completed in 2 <sup>nd</sup> Quarter 2010. All problems will be fixed by end of 1 <sup>st</sup> Quarter 2011. No new outages since the 2 <sup>nd</sup> Quarter 2010.
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. No new outages since the 2 <sup>nd</sup> Quarter 2010.

#### Fourth Quarter Rolling 12 Months

(e)(5) <u>A rolling 12-month breakdown and analysis of outage causes during the</u> 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, 2010 through December 31, 2010 – Three PUC Major Event Exclusions

CAUSE	NO. OF OUTAGES	OUTAGE PERCENTAGE	KVA TOTAL	KVA PERCENTAGE	KVA- MINUTE TOTAL	KVA-MINUTE PERCENTAGE
Storms	385	12%	1,056,361	14%	113,869,681	19%
Trees (Contact)	77	2%	164,355	2%	18,416,380	3%
Trees (Falling)	561	18%	1,524,455	20%	147,786,602	24%
Equipment Failures	909	29%	2,619,899	34%	200,894,975	33%
Overloads	471	15%	443,409	6%	25,529,615	4%
Vehicles	149	5%	371,238	5%	44,288,745	7%
Other	553	19%	1,460,292	19%	60,599,897	10%
TOTALS	3,105	100%	7,640,009	100%	611,385,895	100%

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

Project:Measurement2010 4Q2010 4QCompleteYear 2010Year 2010 <thy< th=""><th></th><th></th><th></th><th></th><th></th><th>YTD</th><th></th></thy<>						YTD	
Communications Goals       Telecom Battery Maintenance       Batteries       23       25       109%       92       94         Overhead Distribution Goals       Sectionalizer/Recloser Control       Control Units       0       0       N/A       82       117         Sectionalizer/Upper Switch       Switches       0       0       N/A       82       117         Sectionalizer/Upper Switch       Switches       0       0       N/A       0       0         Overhead Transmission Goals       Tower Helicopter Inspections       Number of Towers       0       687       N/A       500       1.224         Tower Ground Detail Inspections       Number of Towers       50       0       0%       300       338         Substations Goals       E	Unit of	Target for	Actual for	Percent	Targets for	Actuals	Percen
Telecom Battery Meintenance       Batteries       23       25       109%       92       94         Overhead Distribution Goals         Sectionalizer/Recloser Control       Control Units       0       0       N/A       82       117         Sectionalizer/Upper Switch       Switches       0       0       N/A       82       117         Sectionalizer Upper Switch       Switches       0       0       N/A       0       0         Overhead Transmission Goals       Tower Helicopter Inspections       Number of Towers       0       687       N/A       500       1.224         Tower Ground Detail Inspections       Number of Towers       50       0       0%       300       338         Substations Goals	Measurement	2010 4Q	2010 4Q	Complete	Year 2010	Year 2010	Complet
Overhead Distribution Goals         Sectionalizer/Recloser Control       Control Units       0       0       N/A       82       117         Sectionalizer/Recloser Control       Control Units       0       0       N/A       82       117         Sectionalizer Upper Switch       Switches       0       0       N/A       0       0         Overhead Transmission Goals	Goals						
Sectionalizer/Recloser Control       Control Units       0       0       N/A       82       117         Sectionalizer Upper Switch       Switches       0       0       N/A       0       0         Overhead Transmission Goals       Tower Helicopter Inspections       Number of Towers       0       687       N/A       500       1.224         Tower Ground Datail Inspections       Number of Towers       50       0       0%       300       338         Substations Goals	laintenance Batteries	23	_25	109%	92	94	102%
Socializer Upper Switch       Switches       0       0       N/A       0       0         Overhead Transmission Goals	ution Goals						
Overhead Transmission Goals         Tower Helicopter Inspections       Number of Towers       0       687       N/A       500       1.224         Tower Ground Detail Inspections       Number of Towers       50       0       0%       300       338         Substations Goals	oser Control Control Units	0	0	N/A	82	117	143%
Number of Towers       50       0       0%       300       338         Substations Goals         Substations Goals         Breaker Maintenance       Breakers       200       236       118%       756       776         Transformer Maintenance       Breakers       200       236       118%       756       776         Transformer Maintenance       Breakers       200       236       118%       756       776         Transformer Maintenance       Batteries       261       267       102%       1.044       1.044         Station Battery Maintenance       Relays       350       428       122%       1.910       2.037         Underground Distribution Goals       Ital       137       126       92%       550       556         Network Vault Inspections       Network Units       137       126       92%       550       556         Network Protector Inspections       Protectors       75       113       151%       300       533         Underground Transmission Goals       Ital       13       4       31%       52       114         Vegetation Management Goals	r Switch Switches	0	0	N/A	0	0	N//
Number of Towers       50       0       0%       300       338         Substations Goals         Substations Goals         Breaker Maintenance       Breakers       200       236       118%       756       776         Transformer Maintenance       Breakers       200       236       118%       756       776         Transformer Maintenance       Breakers       200       236       118%       756       776         Transformer Maintenance       Batteries       261       267       102%       1.044       1.044         Station Battery Maintenance       Relays       350       428       122%       1.910       2.037         Underground Distribution Goals       Ital       137       126       92%       550       556         Network Vault Inspections       Network Units       137       126       92%       550       556         Network Protector Inspections       Protectors       75       113       151%       300       533         Underground Transmission Goals       Ital       13       4       31%       52       114         Vegetation Management Goals	ission Goals						
Substations Goals     Substations Goals       Breaker Maintenance     Breakers       200     236     118%       756     776       Transformer Maintenance     Transformers       7     28     400%       65     74       Station Battery Maintenance     Batteries       261     267     102%       1.044     1.044       Station Battery Maintenance     Batteries       261     267     102%       1.044     1.044       Station Relay Maintenance     Relays       350     428     122%       1.910     2.037       Underground Distribution Goals     187       Manhole Inspections     Manholes       Network Vault Inspections     Network Units       137     126       92%     550       556       Network Protector Inspections     Protectors       75     113     151%       300     533       Underground Transmission Goals     13       Protection Plant Inspection     Work Packages       13     4       314     31%       52     114	spections Number of Towers	0	687	N/A	500	1,224	245%
Breaker Maintenance         Breakers         200         236         118%         756         778           Transformer Maintenance         Transformers         7         28         400%         65         74           Station Battery Maintenance         Batteries         261         267         102%         1.044         1.044           Station Relay Maintenance         Relays         350         428         122%         1.910         2.037           Underground Distribution Goals	ail Inspections Number of Towers	50	0	0%	300	338	113%
Transformer Maintenance       Transformers       7       28       400%       65       74         Station Battery Maintenance       Batteries       261       267       102%       1.044       1.044         Station Relay Maintenance       Relays       350       428       122%       1.910       2.037         Underground Distribution Goals	S						
Station Battery Maintenance       Batteries       261       267       102%       1.044       1.044         Station Relay Maintenance       Relays       350       428       122%       1.910       2.037         Underground Distribution Goals         Manhole Inspections       Manholes       187       212       113%       750       764         Network Vault Inspections       Network Units       137       126       92%       550       556         Network Protector Inspections       Protectors       75       113       151%       300       533         Underground Transmission Goals       Pressurization and Cathodic       Protection       13       4       31%       52       114         Vegetation Management Goals	ce Breakers	200	236	118%	756	776	103%
Station Relay Maintenance       Relays       350       428       122%       1,910       2,037         Underground Distribution Goals	enance Transformers	7	28	400%	65	74	114%
Underground Distribution Goals     187     212     113%     750     764       Manhole Inspections     Network Units     137     126     92%     550     556       Network Vault Inspections     Protectors     75     113     151%     300     533       Underground Transmission Goals     Protector     75     113     151%     52     114       Pressurization and Cathodic     Protection     Work Packages     13     4     31%     52     114       Vegetation Management Goals	intenance Batteries	261	267	102%	1.044	1,044	100%
Manhole     Image:	tenance Relays	350	428	122%	1,910	2,037	107%
Network Valit Inspections         Network Units         137         126         92%         550         556           Network Protector Inspections         Protectors         75         113         151%         300         533           Underground Transmission Goals         Pressurization and Cathodic         13         4         31%         52         114           Vegetation Management Goals         Vork Packages         13         4         31%         52         114	tribution Goals						
Network Protector Inspections     Protectors     75.     113     151%     300     533       Underground Transmission Goals	ns Manholes	187	212		750		102%
Underground Transmission Goals Pressurization and Cathodic Protection Plant Inspection Work Packages 13 4 31% 52 114 Vegetation Management Goals	ections Network Units	137	126	92%	550	556	1019
Pressurization and Cathodic Protection Plant Inspection Work Packages 13 4 31% 52 114 Vegetation Management Goals	Inspections Protectors	75	113	151%		533	178%
Protection Plant Inspection Work Packages 13 4 31% 52 114 Vegetation Management Goals	nsmission Goals						
Vegetation Management Goals							
Vegetation Management Goals	spection Work Packages	13	4	31%	52	114	219%
			_				
Overhead Line Clearance         Circuit Overhead Miles         392         476         121%         1,410         1,696           Total Units         1,695         2,602         154%         7,811         9,367	aranceCircuit Overhead Mile		476	121%	1,410	1,696	1209

#### (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	4 <sup>th</sup> Qtr.	4 <sup>th</sup> Qtr.	YTD	YTD
	Budget	Actuai	Budget	Actual	Budget
Total	\$189,663,301	\$41,068,341	\$48,502,843	\$174,509,879	\$189,663,301

Expenses were less than anticipated due to slower ramp up of Energy Efficiency Programs, implementation of cost saving programs, and lower Transmission and ancillary services expenses.

#### (e)(8) <u>Quarterly and year-to-date information on budgeted versus actual transmission</u> and distribution capital expenditures in total and detailed by the EDC's own functional account code or FERC account code as available.

Capital	2010	4 <sup>th</sup> Qtr.	4 <sup>th</sup> Qtr.	YTD	YTD
	Budget	Actual	Budget	Actual	Budget
Total	\$274,763,201	\$80,055,871	\$75,609,675	\$258,784,897	\$274,763,201

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.

SubstationElectrical Equipment TeProtection & Control TeSr. Elec. Equipment Te	ech 12 ble 7 ech ( otal 26 ech 25
Telecom Splicer/Trou Test Table Te To To Substation Electrical Equipment Te Protection & Control Te Sr. Elec. Equipment Te	ble 7 ech ( otal 26 ech 25
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Sr. UG Spli	
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Rigger Specia	list
Equipment Attend	ant 1
Equipment Material Hand	ller 6
Field Inspec	tor 8
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Lineworker Hel	per (
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Service Crew Lea	
Shop Mechanic 2 Rig	ger 2
Yard Group Lead	der f
Sr. Linewor	ker 59
Το	tal 235
Street Light Changers To	otai <del>(</del>
Mobile Worker Ta	tal 1

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

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

2	Drafter	Engineering
10	General Clerk - Grad	Engineering
0	General Technician	
6	GIS Technician B	
1	Head File Record Clerk	
3	Survey Instrument	
4	Right of Way Agent A	
5	Sr. Technician	
4	T&D Mobile Worker	
2	Technician A	
9	Technician B	
4	Technician C	
4	Test Technician, Mobile	
54	Total	
7	Sr. Technician	Service Center Technician
11	Technician	
18	Total	
31	Senior Operator	Traveling Operator/Troubleshooter
9	Traveling Operator	
0	Traveling Operator 1/C	
14	Troubleshooter	
54	Total	
12	Total	Load Dispatcher
18	Meter Technician	Meter Technician
18	Sr. Meter Technician	
36	Total	
14	Total	Meter Reader
12	Autodialing Operator	Customer Service Representatives
94	Customer Service Rep	
2	Word Processing Clerk	
3	Sr. Customer Service	
0	Telephone Switchboard	
111	Total	
385	Total	Admin/Supervisory/Mgmt
1,069	TOTAL	

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(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 – 4" Quarter 2010								
Month	Accepts	Refusals	Total	Percentage				
October	83	167	250	33%				
November	73	152	225	32%				
December	156	. 315	471	33%				

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Amount of Time it Takes to Obtain the Necessary Personnel – 4<sup>th</sup> Quarter 2010

Month	Total Callout Events	Necessary Personnel Accepting	Average Minutes per Calling Event		nel Average Minutes Obtai		ge Minutes to in Necessary Personnel
October	35	83	11.0	385/35	4.6	385/83	
November	37	73	13.4	496/37	6.8	496/73	
December	65	156	16.9	1,096/65	7.0	1,096/156	
4 <sup>th</sup> Quarter 2010	137	312	14.4	1,977/137	6.3	1,977/312	
YTD	806	2,523	19.5	15,677/806	6.2	15,677/2,523	

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 October, on average, it took Duquesne Light, 4.6 minutes, per worker, to obtain 83 accepts during the 35 callouts. It took Duquesne Light, on average, 11.0 total minutes to obtain the necessary personnel for each of its 35 callouts.

#### ATTACHMENT A

(e)(3) <u>Rolling 12-month reliability index values (SAIFI, CAIDI, SAIDI, and if available, MAIFI) and other pertinent information</u> 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
23733	Universal	Penn Hills	EA11	5	26,095	11/24/10	2,328,274	76,736	89	2.94	30
4253	Grant	Preble	Breaker	4	3,095	10/27/10	2,219,330	13,066	717	4.22	170
4499	Irwin	Preble	Breaker	4	3,163	10/5/10	2,253,437	12,652	712	4.00	178
<u>23</u> 630	Sewickley	Raccoon	WA573	4	38,180	8/14/10	12,649,888	60,928	331	1.60	208
23700	North	Edison	WA386	4	17,835	7/29/10	9,016,259	128,339	506	7.20	70
23950	Wilkinsburg	Penn Hills	EA205/EA765	6	16,022	7/14/10	12,880,873	98,440	804	6.14	131
23610	Findlay	Raccoon	WA634	4	25,975	5/28/10	10,377,309	52,350	400	2.02	198
23635	Ambridge	Raccoon	Breaker	4	18,308	5/18/10	4,711,399	165,971	257	9.07	28

