



411 Seventh Avenue, MD 16-4  
Pittsburgh, PA 15219

**Vernon J. Edwards**  
Regulatory Compliance Supervisor

Telephone: 412-393-3662  
Fax: 412-393-5687  
vedwards@duqlight.com

April 29, 2010

**VIA OVERNIGHT MAIL DELIVERY**

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

**RECEIVED**

APR 29 2010

**PA PUBLIC UTILITY COMMISSION  
SECRETARY'S BUREAU**

**Re: Duquesne Light Company  
2010 First Quarter Reliability Report**

Dear Secretary Chiavetta:

*L-00030161*

Enclosed for filing is the First 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  
2010 First Quarter Reliability Report

RECEIVED

APR 29 2010

Filed April 30, 2010

PA PUBLIC UTILITY 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.**

On Friday, February 5, 2010, at approximately 1800 hours, heavy snow started falling in our service area in Allegheny and Beaver counties. This heavy, wet snow continued to fall, causing limbs and trees to break and fall into our power lines, resulting in service disruptions to our customers. The heavy snowfall and impassable roads made it difficult for our responders to initially assess damage and for our crews to reach some areas. The PA Department of Transportation closed major roadways.

We called our weather forecast service on Friday, February 5, 2010 and they reported the snow would begin around noon and continue overnight, with the heaviest snowfall of 1 to 2 inches per hour ending with an accumulation of 8 to 12 inches of snow on Saturday, February 6 by 1000 hours. The forecast called for a high of 34° on Friday and a low of 25°, with Saturday's high of 26° and a low of 12°, and Sunday's high of 22° with a low of 5°. We proactively scheduled additional crews for Friday evening and Saturday in anticipation of the snow. Our Storm Team was activated on Friday evening, February 5, 2010.

The National Weather Service in Pittsburgh issued winter storm warnings for Allegheny and Beaver counties until 1800 hours on Saturday, February 6, 2010. A record daily maximum snowfall of 11.4 inches was recorded for Friday, February 5, 2010. The previous record was 4.7 inches set in 1899. A record daily maximum snowfall of 9.7 inches was recorded for Saturday, February 6, 2010, breaking the previous record of 4.3 inches set in 1911.

- (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. (continued)**

According to the National Weather Service in Moon Township, the 21.1 inches of snow that fell from Friday, February 5, 2010 into Saturday, February 6, 2010, was the fourth-largest snowfall in Pennsylvania history. On Saturday, February 6, 2010, Governor Edward G. Rendell declared a statewide disaster. The National Weather Service in Moon Township reported another milestone reached in western Pennsylvania meteorological history. The additional 7.9 inch snowfall that fell on Tuesday, February 9, 2010 and Wednesday, February 10, 2010, will go down as the snowiest February in history. The total snowfall for the month as of February 10, 2010 is 29.9 inches.

130,184 customers were affected throughout the course of this snow storm from a total of approximately 580,000 customers in our service territory. At the peak of this storm, 57,000 customers experienced service interruptions.

Restoration for the last customer affected by this storm was at 1800 hours on Friday, February 12, 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
<b>Benchmark</b>	126	1.17	108	*
<b>12 Month Standard</b>	182	1.40	130	*
<b>2010 1Q (Rolling 12 mo)</b>	83	.95	87	*

\* Sufficient information to calculate MAIFI is unavailable.

#### **Formulas used in calculating the indices**

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

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

$$\text{CAIDI} = \text{SAIDI/SAIFI}$$

**Data used in calculating the indices**

Total KVA Interrupted for the Period (Excluding 2/5/10 Major Event):	6,727,141	KVA
Total KVA-Minutes Interrupted: (Excluding 2/5/10 Major Event):	587,983,454	KVA-Minutes
System Connected Load as of 3/31/10:	7,050,027	KVA
February 5, 2010 Major Event:	1,562,210 KVA (22% of System Load)	
	1,193,717,350 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)**

**First Quarter Rolling 12 Months**

Rank	Circuit	Name	Service Center	Remedial Actions Planned or Taken
1	23870	Mt. Nebo	Raccoon	Outages due to falling trees. VM to review circuit in the field and determine if any specific action is required. Expected completion will be end of 2 <sup>nd</sup> Quarter 2010 for review of tree issues.
2	23961	Carson	Preble	Three out of four Lightning Arrestor failures appear to be related - Lightning Arrestor failed causing damage to surrounding primary bushings and LA on nearby transformers. Last outage was due to overloaded transformer, which was remedied by installing an additional transformer to relieve overloaded transformer.
3	4067	Schenley	Penn Hills	All outages in 2009 related to storm of June 18 – 20, 2009. Last outage in September caused by a motor vehicle accident.
4	23734	Universal	Penn Hills	Three equipment failures, Primary Insulator, Transformer Bushing and Cable. One outage due to Trees. Will perform infrared testing 2 <sup>nd</sup> Quarter of 2010 with repairs in 3 <sup>rd</sup> Quarter in this area to reduce equipment failures.
5	4253	Grant	Preble	All outages in June 2009 related to storm. No further follow-up necessary.

For reference, the following chart shows the 4<sup>th</sup> Quarter 2009 rolling 12-month worst circuits and action forecasted for remediation with updates.

**Fourth Quarter Rolling 12 Months**

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.

- (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.

**April 1, 2009 through March 31, 2010 – One PUC Major Event Exclusion**

CAUSE	NO. OF OUTAGES	OUTAGE PERCENTAGE	KVA TOTAL	KVA PERCENTAGE	KVA-MINUTE TOTAL	KVA-MINUTE PERCENTAGE
Storms	344	15%	934,831	14%	171,502,374	29%
Trees (Contact)	88	4%	38,593	1%	3,169,292	1%
Trees (Falling)	388	17%	1,367,937	20%	108,575,150	18%
Equipment Failures	741	33%	2,445,505	36%	195,114,015	33%
Overloads	144	6%	283,464	4%	24,577,024	4%
Vehicles	152	7%	377,114	6%	34,266,589	6%
Other	398	18%	1,279,697	19%	50,779,010	9%
<b>TOTALS</b>	<b>2,255</b>	<b>100%</b>	<b>6,727,141</b>	<b>100%</b>	<b>587,983,454</b>	<b>100%</b>

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

Program Project	Unit of Measurement	Target for 2010 1Q	Actual for 2010 1Q	Percent Complete	Targets for Year 2010	YTD Actuals Year 2010	Percent Complete
<b>Communications Goals</b>							
Telecom Battery Maintenance	Batteries	23	23	100%	92	23	25%
<b>Overhead Distribution Goals</b>							
Sectionalizer/Recloser Control	Control Units	30	75	250%	82	75	91%
Sectionalizer Upper Switch	Switches	0	0	N/A	0	0	N/A
<b>Overhead Transmission Goals</b>							
Tower Helicopter Inspections	Number of Towers	0	0	N/A	500	0	0%
Tower Ground Detail Inspections	Number of Towers	0	0	N/A	300	0	0%
<b>Substations Goals</b>							
Breaker Maintenance	Breakers	125	125	100%	756	125	17%
Transformer Maintenance	Transformers	0	1	2%	65	1	2%
Station Battery Maintenance	Batteries	281	265	102%	1,044	265	25%
Station Relay Maintenance	Relays	520	709	136%	1,910	709	37%
<b>Underground Distribution Goals</b>							
Manhole Inspections	Manholes	300	145	48%	750	145	19%
Network Vault Inspections	Network Units	220	120	55%	550	120	22%
Network Protector Inspections	Protectors	120	165	138%	300	165	55%
<b>Underground Transmission Goals</b>							
Pressurization and Cathodic Protection Plant Inspection	Work Packages	13	10	77%	52	10	19%
<b>Vegetation Management Goals</b>							
Overhead Line Clearance	Circuit Overhead Miles	232	324	140%	1,410	324	23%
<b>Total Units</b>		<b>1,844</b>	<b>1,962</b>	<b>106%</b>	<b>7,811</b>	<b>1,962</b>	<b>25%</b>

**(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 Budget	1 <sup>st</sup> Qtr. Actual	1 <sup>st</sup> Qtr. Budget	YTD Actual	YTD Budget
Total	\$189,663,301	\$43,468,812	\$45,855,836	\$43,468,812	\$45,855,836

Note: Starting with this 1<sup>st</sup> Quarter 2010 report, total Transmission and Distribution Operations and Maintenance are included.

**(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 Budget	1 <sup>st</sup> Qtr. Actual	1 <sup>st</sup> Qtr. Budget	YTD Actual	YTD Budget
Total	\$268,829,097	\$51,990,995	\$68,579,435	\$51,990,995	\$68,579,435

Capital variance is due to delay in major projects caused by February snow storm and a delay in the receipt of major equipment procurement.

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).

<b>Telecom</b>	Electronic Technician	7	
	Sr. Electronic Tech	12	
	Telecom Splicer/Trouble	7	
	Test Table Tech	0	
	<b>Total</b>	<b>26</b>	
<b>Substation</b>	Electrical Equipment Tech	23	
	Protection & Control Tech	27	
	Sr. Elec. Equipment Tech	9	
	<b>Total</b>	<b>59</b>	
<b>Underground</b>	Apprentice T&D	2	
	Driver Helper	0	
	UG Inspector	5	
	Journey UG Splicer	16	
	Sr. UG Splicer	5	
	UG Cable Tester/Installer	11	
	UG Mechanic	9	
	Network Operator	9	
	<b>Total</b>	<b>57</b>	
<b>Overhead</b>	Apprentice T&D	41	
	Rigger Specialist	4	
	Equipment Attendant	1	
	Equipment Material Handler	6	
	Field Inspector	4	
	Journey Lineworker	101	
	Lineworker Helper	0	
	Rigger Crew Leader	2	
	Service Crew Leader	5	
	Shop Mechanic 2 Rigger	1	
	Yard Group Leader	4	
	Sr. Lineworker	59	
	<b>Total</b>	<b>228</b>	
	<b>Street Light Changers</b>	<b>Total</b>	<b>6</b>
	<b>Mobile Worker</b>	<b>Total</b>	<b>2</b>



(e)(9) (Continued)

<b>Engineering</b>	Drafter	3
	General Clerk - Grad	10
	General Technician	0
	GIS Technician B	5
	Head File Record Clerk	1
	Survey Instrument	3
	Right of Way Agent A	3
	Sr. Technician	4
	T&D Mobile Worker	5
	Technician A	1
	Technician B	11
	Technician C	1
	Test Technician, Mobile	4
	<b>Total</b>	<b>51</b>
<b>Service Center Technician</b>	Sr. Technician	6
	Technician	8
	<b>Total</b>	<b>14</b>
<b>Traveling Operator/Troubleshooter</b>	Senior Operator	29
	Traveling Operator	9
	Traveling Operator 1/C	0
	Troubleshooter	16
<b>Total</b>	<b>54</b>	
<b>Load Dispatcher</b>	<b>Total</b>	<b>12</b>
<b>Meter Technician</b>	Meter Technician	17
	Sr. Meter Technician	19
	<b>Total</b>	<b>36</b>
<b>Meter Reader</b>	<b>Total</b>	<b>14</b>
<b>Customer Service Representatives</b>	Autodialing Operator	9
	Customer Service Rep	94
	Word Processing Clerk	2
	Sr. Customer Service	3
	Telephone Switchboard	0
<b>Total</b>	<b>108</b>	
<b>Admin/Supervisory/Mgmt</b>	<b>Total</b>	<b>357</b>
<b>TOTAL</b>		<b>1,024</b>

- (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 – 1<sup>st</sup> Quarter 2010**

Month	Accepts	Refusals	Total	Percentage
January	120	125	245	49%
February	247	439	686	36%
March	144	210	354	41%

**Amount of Time it Takes to Obtain the Necessary Personnel – 1<sup>st</sup> Quarter 2010**

Month	Total Callout Events	Necessary Personnel Accepting	Average Minutes per Calling Event	Average Minutes to Obtain Necessary Personnel
January	50	120	11.4 : 572/50	4.8 : 572/120
February	67	247	29.3 : 1,960/67	7.9 : 1,960/247
March	62	144	11.5 : 710/62	4.9 : 710/144
<b>1<sup>st</sup> Quarter 2010</b>	<b>179</b>	<b>511</b>	<b>18.1 : 3,242/179</b>	<b>6.3 : 3,242/511</b>
<b>YTD</b>	<b>179</b>	<b>511</b>	<b>18.1 : 3,242/179</b>	<b>6.3 : 3,242/511</b>

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 January, on average, it took Duquesne Light, 4.8 minutes, per worker, to obtain 120 accepts during the 50 callouts. It took Duquesne Light, on average, 11.4 total minutes to obtain the necessary personnel for each of its 50 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	Lockouts	Connected KVA	Last Outage	Total KVA-Minutes	Total KVA Interrupted	SAIDI	SAIFI	CAIDI
23870	Mt. Nebo	Raccoon	Recloser	4	26,795	3/10/10	3,455,861	41,488	129	1.55	83
23961	Carson	Preble	ER314	4	36,412	2/18/10	3,095,208	70,553	85	1.94	44
4067	Schenley	Penn Hills	Breaker	4	1,602	9/11/09	2,407,728	7,755	1,503	4.84	310
23734	Universal	Penn Hills	EA709	4	21,670	7/23/09	7,190,602	61,224	332	2.83	117
4253	Grant	Preble	Breaker	5	3,095	6/20/09	3,190,460	16,516	1,031	5.34	193