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August 1, 2012

VIA OVERNIGHT MAIL DELIVERY

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

AUG 1 2012

PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU

Re: Duquesne Light Company 2012 Second Quarter Electric Reliability Report

Dear Secretary Chiavetta:

Enclosed for filing is the Second Quarter Electric 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.

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.

Vernon J. Edwards Manager, Regulatory Affairs

Enclosures c: (Public Version): Mr. W. Williams – Bureau of CEEP Ms. Y. Snowberger – Bureau of CEEP Mr. I. A. Popowsky – Office of Consumer Advocate Office of Small Business Advocate



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AUG 1 2012

PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU

Duquesne Light Company 2nd Quarter 2012 Electric Reliability Report to the

Pennsylvania Public Utility Commission

August 1, 2012

DUQUESNE LIGHT COMPANY Second Quarter 2012 – Electric Reliability Report

Filed August 1, 2012

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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.

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

Vernon J. Edwards – Manager, Regulatory Affairs (412) 393-3662, vedwards@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 second quarter of 2012.

(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	*	
2012 2Q (Rolling 12 mo)	93	0.82	113	*	

* 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 5,819,155 KVA
- Total KVA-Minutes Interrupted:
 - d: 664,669,922 KVA-Minutes
- System Connected Load as of 6/30/12: 7,119,806 KVA

(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.

With respect to the Company's worst performing circuits, the Company goes through the following evaluation to make that determination:

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, because customer surveys show that a significant drop in satisfaction occurs when customers experience four or more interruptions in a year, and that threshold was therefore used as a basis for this evaluation method.

Next, 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.

Finally, 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.

This circuit analysis method requires timely review by in-house staff and provides a true representation of the dynamic nature of the Company's distribution system. The report will capture all circuits that have experienced four or more lockouts which 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 a listing of the Company's worst performing circuits as described above, including circuit reliability values and service centers associated with each such 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	23640	Midland	Raccoon	Outages due to lightning damage and two falling tree incidents. The tree issues were resolved when the outages were restored. During the 1 st and 2 rd Quarters 2012, major enhancements were made to this circuit to improve long-term reliability. 1) A tie (WR576) was added to Valley Circuit D23783 for use as a remote-controlled emergency feed and 2) a new IntelliRupter (WA755) was installed on the main feeder to provide automatic sectionalizing for faults to reduce the number of customers affected by an outage.
2	23890	Carrick	Preble	Outages due to equipment failures, a deteriorated pole and a jumper failure, as well as falling trees near Becks Run Road. Most recent outage was due to accidental boom contact with the primary during circuit maintenance. Vegetation Management (VM) completed a thorough inspection of the Becks Run Road area, as well as completed scheduled maintenance of the entire circuit during 2011. Engineering completed infrared inspections on this circuit during 4 th Quarter 2011. Construction has completed all the repairs identified by the Infrared inspections. To improve long-term reliability, Engineering has developed a job to relocate the feeder for this circuit away from the unstable hillside along Becks Run which will prevent future tree fall-ins.
3	23733	Universal	Penn Hills	Outages due to storm damage, a fallen tree that broke an insulator, a downed wire caused by equipment failure and an accidental fault caused while pulling new conductor with EA686 in Hot Line Tag. The equipment failure was repaired and all storm damage permanently repaired. VM issues were resolved when the outages were restored.
4	23752	Dravosburg	McKeesport	Outages due to a fallen tree across primary, an aerial cable splice failure, lightning damage during a storm and a bus differential at Dravosburg Substation caused by animal contact. The failed aerial cable splice was replaced and all storm damage permanently repaired. VM issues were resolved when the outage occurred.
5	23716	Pine Creek	Edison	Outages due to storm damage, an insulator failure, a tree falling onto a cross arm, and wrapped phase wires along the main feeder between the Substation and WA384. The failed insulator and broken cross arm were replaced and all storm damage permanently repaired. The feeder between the substation and WA384 is being re-sagged to prevent phases from wrapping together in the future. Tree issues were resolved when the outage incident occurred. VM will review the circuit between the substation and WA384 and will address identified vegetation issues.
6	23870	Mt Nebo	Raccoon	Last outage occurred in November 2011 when a distribution capacitor failed. Prior outages were due to general storm damage, a transformer failure and a fallen tree across 3 phases of the feeder. The failed transformer and capacitor were replaced and all storm damage permanently repaired. Tree issues were resolved when the outage incident occurred. VM reviewed the circuit and found no additional issues to remediate.
7	23650	Neville	Preble	Last outage occurred in August 2011. Prior outages were due to falling trees on or near Pine Hollow and McCoy Roads which VM corrected during the 3 rd Quarter 2011. Asset Management has issued a recommendation to install an additional IntelliRupter beyond EA261 to reduce customer exposure during future problems. Construction installed this new automated IntelliRupter (ER538) at the end of the 1 st Quarter 2012. No new outages occurred after this but continuing to monitor this circuit.
8	23935	Eastwood	Penn Hills	Last outages occurred during storms in July 2011. Circuit was reviewed by Asset Management for overloads on sectionalizer EA657 and reclosers on Pole 209725, Map G7-3. Crews replaced three reclosers on Pole 209725 and balanced the loads beyond. No new outages occurred after this but continuing to monitor this circuit.

Second Quarter Rolling 12 Months

(e)(5) <u>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.</u>

	NO, OF	OUTAGE	KVA	KVA	KVA- MINUTE	KVA-MINUTE
CAUSE	OUTAGES	PERCENTAGE	TOTAL	PERCENTAGE	TOTAL	PERCENTAGE
Storms	545	17%	1,108,487	19%	185,787,333	28%
Trees (Contact)	73	2%	78,182	1%	8,632,621	1%
Trees (Falling)	639	20%	1,310,393	23%	179,725,492	27%
Equipment Failures	910	29%	1,820,666	31%	181,841,462	27%
Overloads	394	12%	374,437	6%	25,327,075	4%
Vehicles	151	5%	409,089	7%	45,127,276	7%
Other	480	15%	717,901	13%	38,228,663	6%
TOTALS	3,192	100%	5,819,155	100%	664,669,922	100%

July 1, 2011 through June 30, 2012 - No PUC Major Event Exclusions

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

	-			1		YTD	
Program	Unit of	Target for	Actual for	Percent	Targets for	Actuals	Percen
Project	Measurement	2012 2Q	2012 2Q	Complete	Year 2012	Year 2012	Complet
Communications Goals				ĺ			
Communication Battery Maintenance	Balteries	24	24	100%	96	48	50%
Overhead Distribution Goals							
Sectionalizer and Reclosers	Devices	250	250	100%	497	250	50%
Overhead Transmission Goals							
Tower Helicopter Inspections	Number of Towers	500	0	0%	500	0	0%
Tower Ground Detail Inspections	Number of Towers	125	193	154%	300	193	64%
Substations Goals							
Breaker Maintenance	Breakers	225	201	89%	828	462	56%
Transformer Maintenance	Transformers	50	43	86%	74	56	76%
Station Battery Maintenance	Batteries	245	244	100%	980	489	50%
Station Relay Maintenance	Retays	800	672	84%	2,783	1,146	41%
Underground Distribution Goals							
Manhole Inspections	Manhotes	200	121	61%	750	584	78%
Network Vault Inspections	Network Vault Sites	60	0	0%	238	238	100%
Network Protector Inspections	Network Protectors	150	0	0%	586	586	100%
Network Transformer Inspections	Network Transformers	150	0	0%	586	586	100%
Underground Transmission Goals							
Pressurization and Cathodic							
Protection Plant Inspection	Work Packages	13	13	100%	52	26	50%
Vegetation Management Goals							
Overhead Line Clearance	Circuit Overhead Miles	351	283	81%	1,300	500	38%
	Total Units	3,143	2,044	65%	9,570	5,164	54%

(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	2012	2 nd Qtr.	2 nd Qtr.	YTD	YTD
	Budget	Actual	Budget	Actual	Budget
Total	\$195,089,585	\$44,755,914	\$43,931,081	\$86,105994	\$91,827,710

(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.

	2012	2 nd Qtr.	2 nd Qtr.	`YTD	YTD
Capital	Budget	Actual	Budget	Actual	Budget
Totại	\$187,595,649	\$50,164,352	\$51,611,593	\$98,852,484	\$103,501,828

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) <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>

7	Electronic Technician	Telecom
11	Sr. Electronic Tech	
6	Telecom Splicer/Trouble	
24	Total	
25	Electrical Equipment Tech	Substation
27	Protection & Control Tech	
9	Sr. Elec. Equipment Tech	
61	Total	
14	Journey Apprentice	Underground
0	Driver Helper	
4	UG Inspector	
14	Journey UG Splicer	
5	Sr. UG Splicer	
8	UG Cable Tester/Installer	
4	UG Mechanic	
7	Network Operator	
56	Total	
58	Apprentice T&D	Overhead
5	Rigger Specialist	
1	Equipment Attendant	
6	Equipment Material Handler	
5	Field Inspector	
80	Journey Lineworker	
10	Restricted HS Lineworker	
1	Rigger Crew Leader	
4	Service Crew Leader	
1	Shop Mechanic 2 Rigger	
4	Yard Group Leader	
60	Sr. Lineworker	
6	Distribution Tech	
241	Total	
6	Total	Street Light Changers
2	Total	Mobile Worker

(e)(9) (<u>Continued)</u>

0	Drafter	Engineering
11	General Clerk - Grad	00
5	GIS Technician B	
1	Head File Record Clerk	
3	Survey Instrument	
4	Right of Way Agent A	
6	Sr. Technician	
8	T&D Mobile Worker	
2 7	Technician A	
	Technician B	
5	Technician C	
6	Test Technician, Mobile	
58	Total	
7	Sr. Technician	Service Center Technician
6	Technician	
13	Total	
30	Senior Operator	Traveling Operator/Troubleshooter
7	Traveling Operator	
11	Traveling Operator 1/C	
7	Troubleshooter	
55	Total	
9	Total	Load Dispatcher
2	Meter Technician	Meter Technician
25	Sr. Meter Technician	
27	Total	
13	Total	Meter Reader
8	Autodialing Operator	Customer Service Representatives
107	Customer Service Rep	
3	Word Processing Clerk	· · · · · · · · · · · · · · · · · · ·
3	Sr. Customer Service	······································
121	Total	······································
391	Total	Admin/Supervisory/Mgmt
1,077	TOTAL	

(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 – 2 nd Quarter 2012							
Month	Accepts	Refusals	Total	Percentage			
April	152	285	437	35%			
May	228	496	724	31%			
June	188	427	615	30%			

Call-Out Accepta	nce Rate – 2 nd Quarter 2012

Amount of Time it Takes to Obtain the Necessary Personnel – 2nd Quarter 2012

Month	Total Callout Events	Necessary Personnel Accepting	Average Minutes per Calling Event		Average Minutes to Obtain Necessary Personnel	
April	58	152	16.3	948/58	6.2	948/152
May	90	228	36.6	3,296/90	14.5	3,296/228
June	78	188	12.4	970/78	5.2	970/188
2 nd Quarter 2012	226	568	23.1	5,214/226	9.2	5,214/568
YTD	476	1,221	18.0	8,553/476	7.0	8,553/1,221

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/guarter/year.

As an example, during the month of April, on average, it took Duquesne Light, 6.2 minutes, per worker, to obtain 152 accepts during the 58 callouts. It took Duguesne Light, on average, 16.3 total minutes to obtain the necessary personnel for each of its 58 callouts.

ATTACHMENT A

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Worst Performing Circuits

Circuit	Name	Service Center	Device	Lockouts	Connected KVA	Last Outage	Total KVA- Minutes	Total KVA Interrupted	SAIDI	SAIFI	CAIDI
23640	Midland	Raccoon	Recloser	4	27,835	06/26/12	5,303,816	31,688	191	1.14	167
23890	Carrick	Preble	EA778	6	24,616	06/11/12	3,870,240	39,739	157	1.61	97
23733	Universal	Penn Hills	EA686	4	26,095	06/11/12	5,440,818	96,828	209	3.71	56
23752	Dravosburg	McKeesport	BKR	4	18,505	05/20/12	4,693,561	72,978	254	3.94	64
23716	Pine Creek	Edison	WA384	4	30,534	04/16/12	9,695,742	49,496	318	1.62	196
23870	Mt Nebo	Raccoon	WA557	4	26,795	11/23/11	12,989,840	86,517	485	3.23	150
23650	Neville	Preble	EA261	4	27,349	08/27/11	6,883,055	60,801	252	2.22	113
23935	Eastwood	Penn Hills	Recloser	4	21,437	07/29/11	777,972	3,812	36	0.18	204

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