

Lindsay A. Baxter  
Manager, State Regulatory Strategy  
[lbaxter@duqlight.com](mailto:lbaxter@duqlight.com)  
(412) 393-6224



July 31, 2019

M-2016-2522508

**VIA CERTIFIED MAIL**

Ms. Rosemary Chiavetta, Secretary  
Pennsylvania Public Utility Commission  
Commonwealth Keystone Building  
2<sup>nd</sup> Floor, Room-N201  
400 North Street  
Harrisburg, PA 17120

RECEIVED

JUL 31 2019

PA PUBLIC UTILITY COMMISSION  
SECRETARY'S BUREAU

**Re: Duquesne Light Company  
Quarterly Electric Reliability Report -2<sup>nd</sup> Quarter 2019**

Dear Secretary Chiavetta:

Enclosed please find Duquesne Light Company's Quarterly Electric Reliability Report for the second quarter of 2019.

The report is submitted in two versions, proprietary and non-proprietary. The proprietary version in the enclosed sealed envelope contains all the information required by 52 Pa. Code § 57.195 and is marked as "Confidential." Duquesne Light Company respectfully requests that the proprietary version of the Quarterly Electric Reliability Report **not** be made available to the public.

If you have any questions regarding the information contained in this filing, please contact me or Audrey Waldock at 412.393.6334 or [awaldock@duqlight.com](mailto:awaldock@duqlight.com).

Sincerely,

Lindsay A. Baxter

Enclosure

cc (w/ redacted version):

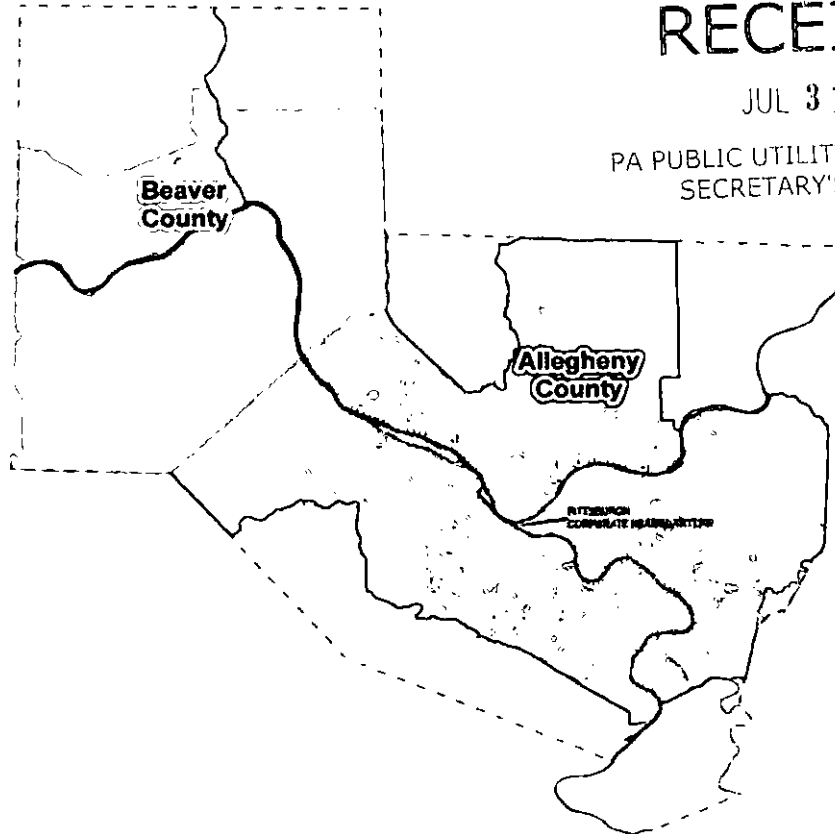
Dan Searfoorce ([dsearfoorc@pa.gov](mailto:dsearfoorc@pa.gov))  
John Van Zant ([jvanzant@pa.gov](mailto:jvanzant@pa.gov))  
David Washko ([dawashko@pa.gov](mailto:dawashko@pa.gov))  
Tonya McCloskey ([TMcCloskey@paoca.org](mailto:TMcCloskey@paoca.org))  
John Evans ([jorevan@pa.gov](mailto:jorevan@pa.gov))  
Sharon Webb ([swebb@pa.gov](mailto:swebb@pa.gov))



RECEIVED

JUL 31 2019

PA PUBLIC UTILITY COMMISSION  
SECRETARY'S BUREAU



***Duquesne Light Company  
Second Quarter 2019***

***Electric Reliability Report***

***to the***

***Pennsylvania Public Utility Commission***

***July 31, 2019***

**57.195 Reporting Requirements**

(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.*

Duquesne Light had no major events during the second quarter of 2019.

(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>2019 2Q (Rolling 12 mo.)</b>	107	0.99	109	*

\* 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 11/15/18 and 2/24/19 Major Events)	7,151,839 KVA
Total KVA-Minutes Interrupted: (excluding 11/15/18 and 2/24/19 Major Events)	778,821,820 KVA-Minutes
System Connected Load as of 6/30/19	7,259,129 KVA
November 15, 2018 Major Event	760,135 KVA (10.5% of System Load) 316,283,090 KVA-Minutes
February 24, 2019 Major Event	1,682,200 KVA (23% of System Load) 784,246,585 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, reclosers, sectionalizers, and line fuses) and on total accumulated KVA-Minutes of customer outage time. Circuits that experience multiple lockouts for a device in combination with high total accumulated KVA-Minutes of customer outage time in each quarterly rolling twelve-month period are identified and the top 5% are reported as Worst-Performing Circuits.

The list of worst-performing circuits is ranked first by the number of KVA-Minutes of outage experienced by customers on these circuits (highest to lowest) and then by device lockouts from highest to lowest. This places a higher priority on circuits with repeat outages affecting customers (SAIFI) while also focusing on outage duration for customers on these circuits (SAIFI and SAIDI).

While repairs are made as quickly as possible following every customer outage, circuits that appear on the worst performing circuits list are targeted for more extensive remediation based on a detailed review of historical outage records looking at root cause problems, field evaluations, and engineering analysis. Project scopes developed as a result of this analysis are incorporated into the Company's Work Plan for engineering, design, and construction. Since the focus is on reducing future customer outage duration and not just outage frequency, special attention is given to establishing/optimizing sectionalizing switch locations and alternate feeds to problem-prone areas of circuits and, where possible, replacing or eliminating equipment that has historically required lengthy repair times as well as a high failure rates.

At the end of each quarter all previously identified circuits are reviewed to verify that past remediation efforts are working and to look for new reliability issues that may be developing. Serious new reliability problems are addressed immediately without waiting additional periods to collect information. This analysis method provides for timely review of circuit performance by in-house staff and it adapts to the dynamic nature of Duquesne Light's distribution system.

**Special Note:** *Because of sophisticated protection and remote automation technologies that the Company uses on its distribution circuits, not all customers on a circuit identified as a worst performing circuit actually experience significant reliability issues. Circuit problems are generally isolated to one load block of a circuit in less than five minutes with downstream customers only experiencing short momentary operations. Customers upstream of a circuit problem may not even experience a momentary outage. Therefore, many customers on a circuit identified as a poor performer do not experience problems with reliability.*

See Attachment A for a list of worst-performing circuits showing feeder device lockouts and reliability index values 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).**

**Second Quarter 2019 Rolling 12 Month Circuit Data**

Rank, Circuit Name, Device	Outages	Remedial Actions Planned or Taken
<p style="text-align: center;">1</p> <p>Midland-Cooks Ferry 22869  Breaker</p>	<ul style="list-style-type: none"> <li>• 5 Total Outages</li> </ul> <p>Second Quarter Outages:</p> <ul style="list-style-type: none"> <li>• One outage was caused by high wind, during a storm.</li> <li>• One outage was caused by lightning.</li> </ul> <p>Previous Outages:</p> <ul style="list-style-type: none"> <li>• The cause of one outage was unknown.</li> <li>• One outage was caused by wires wrapped together.</li> <li>• One outage was caused by lightning, during a storm.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Vegetation Management completed Q4 2017. Proposed for 2022.</li> <li>• This circuit was reviewed by Protection Engineering to identify any potential device coordination issues. Further work to resolve device coordination issues was completed Q1 2019.</li> </ul>
<p style="text-align: center;">2</p> <p>Traverse Run 23770  Breaker</p>	<ul style="list-style-type: none"> <li>• 5 Total Outages</li> </ul> <p>Second Quarter Outages:</p> <ul style="list-style-type: none"> <li>• One outage was caused by tree fall-in.</li> </ul> <p>Previous Outages:</p> <ul style="list-style-type: none"> <li>• One outage was caused by high current overload.</li> <li>• One outage was caused by tree fall-in.</li> <li>• One outage was caused by contact with vehicle.</li> <li>• One outage was caused by wires wrapped together.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Vegetation Management completed Q4 2016. Proposed for 2020.</li> </ul>

Rank, Circuit Name, Device	Outages	Remedial Actions Planned or Taken
<p>3 Wildwood 23869  Breaker</p>	<ul style="list-style-type: none"> <li>• 5 Total Outages</li> </ul> <p>Second Quarter Outages:</p> <ul style="list-style-type: none"> <li>• One outage was caused by lightning.</li> <li>• One outage was caused by tree fall-in.</li> </ul> <p>Previous Outages:</p> <ul style="list-style-type: none"> <li>• One outage was caused by tree fall-in, during a storm.</li> <li>• The cause of one outage was unknown.</li> <li>• One outage was caused by vehicle contact.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Vegetation Management completed Q4 2016. Proposed for 2020.</li> </ul>
<p>4 Raccoon 23620  Recloser</p>	<ul style="list-style-type: none"> <li>• 4 Total Outages</li> </ul> <p>Second Quarter Outages:</p> <ul style="list-style-type: none"> <li>• One outage was caused by tree fall-in.</li> </ul> <p>Previous Outages:</p> <ul style="list-style-type: none"> <li>• Three outages were caused by tree fall-in.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Vegetation Management completed Q2 2014. Scheduled for 2019.</li> </ul>
<p>5 23670 Montour  Breaker</p>	<ul style="list-style-type: none"> <li>• 4 Total Outages</li> </ul> <p>Second Quarter Outages:</p> <ul style="list-style-type: none"> <li>• Two outages were caused by tree fall-in.</li> </ul> <p>Previous Outages:</p> <ul style="list-style-type: none"> <li>• One outage caused by wires wrapped together due to high winds.</li> <li>• One outages was caused by equipment failure.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Vegetation Management completed Q1 2018. Proposed for 2022.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>6 23713 Pine Creek Breaker</p>	<ul style="list-style-type: none"> <li>• 4 Total Outages</li> </ul> <p>Second Quarter Outages:</p> <ul style="list-style-type: none"> <li>• One outage was caused by equipment failure.</li> <li>• The cause of one outage was unknown.</li> <li>• One outage was caused by tree fall-in.</li> </ul> <p>Previous Outages:</p> <ul style="list-style-type: none"> <li>• One outage was caused by tree fall-in.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Vegetation Management completed Q3 2015. Proposed for 2020.</li> </ul>
<p>7 23870 Mt. Nebo Fuse Link</p>	<ul style="list-style-type: none"> <li>• 4 Total Outages</li> </ul> <p>Second Quarter Outages:</p> <ul style="list-style-type: none"> <li>• Two outages were caused by tree fall-in, one during a storm.</li> </ul> <p>Previous Outages:</p> <ul style="list-style-type: none"> <li>• Two outages were caused by tree fall-in.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Vegetation Management completed Q4 2017. Proposed for 2021.</li> </ul>
<p>8 23871 Mt. Nebo Recloser</p>	<ul style="list-style-type: none"> <li>• 4 Total Outages</li> </ul> <p>Second Quarter Outages:</p> <ul style="list-style-type: none"> <li>• One outage was caused by tree fall-in.</li> </ul> <p>Previous Outages:</p> <ul style="list-style-type: none"> <li>• Three outages were caused by tree fall-in.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Vegetation Management completed Q4 2017. Proposed for 2021.</li> </ul>
<p>9 4279 Squaw Run Breaker</p>	<ul style="list-style-type: none"> <li>• 4 Total Outages</li> </ul> <p>Second Quarter Outages:</p> <ul style="list-style-type: none"> <li>• Two outages were caused by tree fall-in, during a storm.</li> </ul> <p>Previous Outages:</p> <ul style="list-style-type: none"> <li>• One outage was caused by equipment failure.</li> <li>• One outage was caused by tree fall-in.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Vegetation Management completed Q4 2018. Proposed for 2023.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>10  23842 Arsenal  Breaker</p>	<ul style="list-style-type: none"> <li>• 4 Total Outages</li> </ul> <p>Second Quarter Outages:</p> <ul style="list-style-type: none"> <li>• The cause of one outage was unknown.</li> <li>• One outage was caused by equipment failure.</li> </ul> <p>Previous Outages:</p> <ul style="list-style-type: none"> <li>• The cause of one outage was unknown.</li> <li>• One outage was caused by equipment failure, during a storm.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• The Company will continue to monitor this circuit for reliability issues.</li> </ul>
<p>11  23640 Midland  Breaker</p>	<ul style="list-style-type: none"> <li>• 4 Total Outages</li> </ul> <p>Second Quarter Outages:</p> <ul style="list-style-type: none"> <li>• The cause of one outage was unknown.</li> </ul> <p>Previous Outages:</p> <ul style="list-style-type: none"> <li>• One outage was caused by contact with vehicle.</li> <li>• One outage was caused by wires wrapped together.</li> <li>• One outage was caused by lightning, during a storm.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• The Company will continue to monitor this circuit for reliability issues.</li> </ul>
<p>12  23714 Pine Creek  Sectionalizer</p>	<ul style="list-style-type: none"> <li>• 4 Total Outages</li> </ul> <p>Second Quarter Outages:</p> <ul style="list-style-type: none"> <li>• No outages.</li> </ul> <p>Previous Outages:</p> <ul style="list-style-type: none"> <li>• The cause of one outage was unknown.</li> <li>• One outage was caused by wires wrapped together due to high wind, during a storm.</li> <li>• One outage was caused by equipment failure.</li> <li>• One outage was caused by tree fall-in, during a storm.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Vegetation Management completed Q4 2018. Proposed for 2023.</li> <li>• This circuit was reviewed by Protection Engineering to identify any potential device coordination issues. The devices were coordinating properly and no further action is necessary.</li> </ul>

Rank, Circuit Name, Device	Outages	Remedial Actions Planned or Taken
13  23710 Pine Creek  Recloser	<ul style="list-style-type: none"> <li>• 4 Total Outages</li> </ul> Second Quarter Outages: <ul style="list-style-type: none"> <li>• No outages.</li> </ul> Previous Outages: <ul style="list-style-type: none"> <li>• Two outages were caused by wires wrapped together due to high winds.</li> <li>• The cause of two outages were unknown, during a storm.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• The Company will continue to monitor this circuit for reliability issues.</li> </ul>
14  23921 Logans Ferry  Recloser	<ul style="list-style-type: none"> <li>• 3 Total Outages</li> </ul> Second Quarter Outages: <ul style="list-style-type: none"> <li>• One outage was caused by tree fall-in, during a storm.</li> <li>• One outage was caused by equipment failure.</li> <li>• One outage was caused by tree fall-in.</li> </ul> Previous Outages: <ul style="list-style-type: none"> <li>• No previous outages.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Vegetation Management completed Q4 2016. Proposed for 2020.</li> </ul>
15  23716 Pine Creek  Breaker	<ul style="list-style-type: none"> <li>• 3 Total Outages</li> </ul> Second Quarter Outages: <ul style="list-style-type: none"> <li>• Two outages were caused by equipment failure.</li> <li>• One outage was caused by tree fall-in.</li> </ul> Previous Outages: <ul style="list-style-type: none"> <li>• No previous outages.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Vegetation Management completed Q1 2019. Proposed for 2023.</li> </ul>

Rank, Circuit Name, Device	Outages	Remedial Actions Planned or Taken
20 23733 Universal Recloser	<ul style="list-style-type: none"> <li>• 3 Total Outages</li> </ul> Second Quarter Outages: <ul style="list-style-type: none"> <li>• No outages.</li> </ul> Previous Outages: <ul style="list-style-type: none"> <li>• Two outages were caused by tree fall-in.</li> <li>• The cause of one outage was unknown, during a storm.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Vegetation Management completed Q2 2018. Proposed for 2023.</li> </ul>
21 23882 Rankin Breaker	<ul style="list-style-type: none"> <li>• 2 Total Outages</li> </ul> Second Quarter Outages: <ul style="list-style-type: none"> <li>• One outage was caused by equipment failure, during a storm.</li> </ul> Previous Outages: <ul style="list-style-type: none"> <li>• One outage was caused by tree fall-in, during a storm.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Vegetation Management completed Q1 2017. Proposed for 2021.</li> </ul>
22 23781 Valley Recloser	<ul style="list-style-type: none"> <li>• 2 Total Outages</li> </ul> Second Quarter Outages: <ul style="list-style-type: none"> <li>• One outage was caused by tree fall-in, during a storm.</li> </ul> Previous Outages: <ul style="list-style-type: none"> <li>• One outage was caused by equipment failure.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Vegetation Management completed Q2 2018. Proposed for 2023.</li> </ul>
23 23630 Sewickley Recloser	<ul style="list-style-type: none"> <li>• 2 Total Outages</li> </ul> Second Quarter Outages: <ul style="list-style-type: none"> <li>• The cause of one outage was unknown, during a storm.</li> <li>• One outage was caused by vehicle contact.</li> </ul> Previous Outages: <ul style="list-style-type: none"> <li>• No previous outages.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• The Company will continue to monitor this circuit for reliability issues.</li> </ul>

Rank, Circuit Name, Device	Outages	Remedial Actions Planned or Taken
24  23712 Pine Creek  Breaker	<ul style="list-style-type: none"> <li>• 2 Total Outages</li> </ul> Second Quarter Outages: <ul style="list-style-type: none"> <li>• No outages.</li> </ul> Previous Outages: <ul style="list-style-type: none"> <li>• One outage was caused by equipment failure.</li> <li>• One outage was caused by tree fall-in.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Vegetation Management completed Q4 2018. Proposed for 2023.</li> </ul>
25  23683 Woodville  Breaker	<ul style="list-style-type: none"> <li>• 2 Total Outages</li> </ul> Second Quarter Outages: <ul style="list-style-type: none"> <li>• No outages.</li> </ul> Previous Outages: <ul style="list-style-type: none"> <li>• One outage was caused by wires wrapped together due to high wind.</li> <li>• One outage was caused by equipment failure.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• The Company will continue to monitor this circuit for reliability issues.</li> </ul>
26  23821 Highland  Recloser	<ul style="list-style-type: none"> <li>• 2 Total Outages</li> </ul> Second Quarter Outages: <ul style="list-style-type: none"> <li>• No outages.</li> </ul> Previous Outages: <ul style="list-style-type: none"> <li>• One outage was caused by tree fall-in.</li> <li>• The cause of one outage was unknown, during a storm.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Vegetation Management completed Q2 2017. Proposed for 2021.</li> </ul>
27  23673 Montour  Fuse Link	<ul style="list-style-type: none"> <li>• 2 Total Outages</li> </ul> Second Quarter Outages: <ul style="list-style-type: none"> <li>• No outages.</li> </ul> Previous Outages: <ul style="list-style-type: none"> <li>• The cause of two outages were unknown.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• The Company will continue to monitor this circuit for reliability issues.</li> </ul>

**(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.*

Proposed solutions to identified service problems are listed in Section (e)(4) above.

**July 1, 2018 through June 30, 2019 – Two PUC Major Event Exclusions**

<b>CAUSE</b>	<b>NO. OF OUTAGES</b>	<b>OUTAGE PERCENTAGE</b>	<b>KVA TOTAL</b>	<b>KVA PERCENTAGE</b>	<b>KVA-MINUTE TOTAL</b>	<b>KVA-MINUTE PERCENTAGE</b>
<b>Storms</b>	455	13%	1,001,011	14%	142,659,708	18%
<b>Trees (Contact)</b>	24	1%	4,856	1%	733,125	1%
<b>Trees (Falling)</b>	1,186	35%	2,084,902	29%	309,519,973	40%
<b>Equipment Failures</b>	824	25%	2,071,247	29%	195,026,120	25%
<b>Overloads</b>	125	3%	140,881	2%	7,791,388	1%
<b>Vehicles</b>	133	3%	504,100	7%	44,132,273	5%
<b>Other</b>	682	20%	1,344,842	18%	78,959,233	10%
<b>TOTALS</b>	3,370	100%	7,151,839	100%	778,821,820	100%

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

2019 Transmission and Distribution Goals and Objectives							
Program Project	Unit of Measurement	Target for 2019 2Q	Actual for 2019 2Q	2Q Percent Complete	Targets for Year 2019	Actual YTD for 2019	Year End % Complete
<b>Communications Goals</b>							
Communication Battery Maintenance	Battery Tasks	29	28	97%	117	52	44%
<b>Overhead Distribution Goals</b>							
Recloser Inspections	Circuits	52	54	104%	130	129	99%
Pole Inspections	Poles	7178	922	13%	17945	922	5%
OH Line Inspections	Circuits	52	54	104%	130	129	99%
OH Transformer Inspections	Circuits	52	54	104%	130	129	99%
Padmount & Below Grade Insp	Circuits	20	36	180%	81	36	44%
<b>Overhead Transmission Goals</b>							
Helicopter Inspections	Number of Structures	576	576	100%	576	576	100%
Ground Inspections	Number of Structures	124	40	32%	370	352	95%
<b>Substations Goals</b>							
Circuit Breaker Maintenance	Breaker Tasks	176	158	90%	408	349	86%
Station Transformer Maintenance	Transformer Tasks	21	39	186%	44	44	100%
Station Battery Maintenance	Battery Tasks	227	219	96%	906	439	48%
Station Relay Maintenance	Relay Tasks	416	417	100%	865	698	81%
Station Inspections	Site Visits	483	472	98%	1942	965	50%
<b>Underground Distribution Goals</b>							
Manhole Inspections	Manholes	300	447	149%	700	623	89%
Major Network Insp (Prot Relay)	Network Protectors	48	32	67%	94	72	77%
Minor Network Visual Inspection (Transformer/Protector/Vault)	Network Transformers	260	230	88%	572	467	82%
<b>Underground Transmission Goals</b>							
Pressurization and Cathodic Protection Plant Inspection	Work Orders	95	86	91%	372	184	49%
<b>Vegetation Management Goals</b>							
Overhead Line Clearance	Circuit Overhead Miles	410	376	92%	1300	679	52%
<b>Total Units</b>		<b>10,519</b>	<b>4,240</b>	<b>40%</b>	<b>26,682</b>	<b>6,845</b>	<b>26%</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.

Budget Variance Recap – O&M Expenses  
 For the Three Months Ending June 30, 2019  
 Favorable/(Unfavorable)

	<b>Total Actual</b>	<b>Total Budget</b>	<b>Variance</b>
<b>Customer Service</b>	10,214,465	14,021,669	3,807,204
<b>Human Resources</b>	2,934,212	3,727,571	793,359
<b>Operations/Operation Services</b>	16,422,954	17,426,678	1,003,724
<b>Technology</b>	13,249,938	15,449,011	2,199,073
<b>General Corporate*</b>	8,422,961	9,341,026	918,065
<b>Total</b>	51,244,532	59,965,955	8,721,423

\*Includes Finance, Office of General Counsel, and Senior Management costs.

Budget Variance Recap – O&M Expenses  
 For the Six Months Ending June 30, 2019  
 Favorable/(Unfavorable)

	<b>Total Actual</b>	<b>Total Budget</b>	<b>Variance</b>
<b>Customer Service</b>	23,012,531	29,810,214	6,797,683
<b>Human Resources</b>	6,145,521	7,043,102	897,581
<b>Operations/Operation Services</b>	34,004,421	34,036,707	32,286
<b>Technology</b>	26,952,333	31,307,647	4,355,314
<b>General Corporate*</b>	17,013,502	18,503,717	1,490,215
<b>Total</b>	107,128,308	120,701,387	13,573,079

\*Includes Finance, Office of General Counsel, and Senior Management costs.

**(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.*

**Budget Variance Recap -Capital**  
 For the Three Months Ending June 30, 2019  
 Favorable/(Unfavorable)

	<b>Total Actual</b>	<b>Total Budget</b>	<b>Variance</b>
<b>Customer Service</b>	4,281,188	2,276,539	(2,004,649)
<b>Human Resources</b>	2,180,967	3,075,227	894,260
<b>Operations/Operation Services</b>	49,400,039	66,598,762	17,198,723
<b>Technology</b>	13,909,745	16,360,930	2,451,185
<b>General Corporate*</b>	10,406,308	8,022,317	(2,383,991)
<b>Total</b>	<b>80,178,247</b>	<b>96,333,775</b>	<b>16,155,528</b>

\*Includes Finance, Office of General Counsel, and Senior Management costs.

**Budget Variance Recap - Capital**  
 For the Six Months Ending June 30, 2019  
 Favorable/(Unfavorable)

	<b>Total Actual</b>	<b>Total Budget</b>	<b>Variance</b>
<b>Customer Service</b>	7,084,889	4,587,183	(2,497,706)
<b>Human Resources</b>	4,813,108	5,917,306	1,104,198
<b>Operations/Operation Services</b>	92,332,872	131,836,422	39,503,550
<b>Technology</b>	29,097,116	34,677,444	5,580,328
<b>General Corporate*</b>	21,152,415	15,885,351	(5,267,064)
<b>Total</b>	<b>154,480,400</b>	<b>192,903,706</b>	<b>38,423,306</b>

\*Includes Finance, Office of General Counsel, and Senior Management costs.

(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>Job Title</b>	<b>Number of Employees</b>
Telecom Splicer/Trouble Tech	4
Electronic Technician	17
Telecom Technician	3
<b>Total Telecom</b>	<b>24</b>
Electrical Equipment Technician	37
Protection & Control Technician	27
Yard Group Leader	3
Rigger	6
Laborer	2
<b>Total Substation</b>	<b>75</b>
UG Splicer	38
UG Cable Inspector	8
Cable Tester	1
Network Operator	13
Equipment Material Handler	1
<b>Total Underground</b>	<b>61</b>
Apprentice T&D	48
Equipment Attendant	1
Lineworker	136
Service Crew Leader	3
Equipment Material Handler	4
<b>Total Overhead</b>	<b>192</b>
Right of Way Agent	4
Surveyor	4
<b>Total Real Estate</b>	<b>8</b>
<b>Total Street Light Changer</b>	<b>5</b>
Engineering Technician	35
GIS Technician	5
T&D Mobile Worker	2
Test Technician, Mobile	6
<b>Total Engineering</b>	<b>48</b>
Senior Operator Apprentice	3
Senior Operator	20
Traveling Operator	0
Troubleshooter	11
<b>Total Traveling Operator/Troubleshooter</b>	<b>34</b>
<b>Total Switching Dispatcher</b>	<b>16</b>
<b>Total Employees</b>	<b>463</b>

(e)(10) *Quarterly and year-to-date information on contractor hours and dollars for transmission and distribution operation and maintenance.*

**CONFIDENTIAL INFORMATION**

**2nd Quarter 2019**

Contractor Dollars:	\$ Redacted
Contractor Hours:	Redacted

**YTD 2019**

Contractor Dollars:	\$ Redacted
Contractor Hours:	Redacted

**(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.*

**CONFIDENTIAL INFORMATION**

**Call-Out Acceptance Rate – 2nd Quarter 2019**

Redacted

**Amount of Time it Takes to Obtain the Necessary Personnel – 2nd Quarter 2019**

Redacted

**(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.*

Matthew G. Bucek – General Manager, Asset Management  
(412) 393-8878, [mbucek@duqlight.com](mailto:mbucek@duqlight.com)

Jaime Bachota – Assistant Controller, Accounting & Financial Reporting  
(412) 393-1122, [jbachota@duqlight.com](mailto:jbachota@duqlight.com)

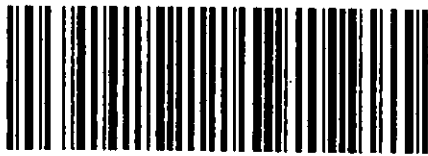
Jason Keller – General Manager, Operations Center  
(412) 393-2897, [jkeller@duqlight.com](mailto:jkeller@duqlight.com)

**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.**

Rank	Circuit No	Circuit Name	Feeder Device	Device Lockouts	Last Lockout	Circuit KVA	Total KVA Interrupted	Total KVA-Minutes	SAIDI	SAIFI	CAIDI
1	22869	Midland-Cooks Ferry	BKR	5	6/24/2019	45166	118315	9421264	208.59	2.61955	79.6286
2	23770	Traverse Run	BKR	5	6/20/2019	28580	118207	13008065	455.145	4.13600	110.044
3	23869	Wildwood	BKR	5	5/23/2019	24841	111480	11523587	463.893	4.48774	103.369
4	23620	Raccoon	100	4	6/18/2019	25475	49587	8779164	344.618	1.94649	177.045
5	23670	Montour	BKR	4	6/10/2019	33087	74537	7325620	221.404	2.25275	98.2816
6	23713	Pine Creek	BKR	4	6/5/2019	28949	131184	8614722	297.582	4.53155	65.6689
7	23870	Mt. Nebo	65K	4	5/30/2019	33379	73335	8887553	266.261	2.19704	121.191
8	23871	Mt Nebo	WR853	4	5/29/2019	23485	64215	8142780	346.722	2.73429	126.804
9	4279	Squaw Run	BKR	4	5/16/2019	3639	17986	6930692	1904.55	4.94256	385.338
10	23842	Arsenal	BKR	4	5/12/2019	36244	105126	9277193	255.964	2.90050	88.2483
11	23640	Midland	BKR	4	5/6/2019	31306	97241	6832444	218.247	3.10614	70.2629
12	23714	Pine Creek	WA609	4	1/8/2019	24285	123360	23044417	948.915	5.07967	186.806
13	23710	Pine Creek	100.0	4	11/26/2018	31769	71869	12119264	381.480	2.26223	168.629
14	23921	Logans Ferry	ER625	3	6/27/2019	32875	140609	12160506	369.901	4.27707	86.4845
15	23716	Pine Creek	BKR	3	6/26/2019	34563	143296	8067518	233.414	4.14593	56.2996
16	4484	Manchester	BKR	3	6/10/2019	2940	8793	6950945	2364.26	2.99081	790.508
17	23841	Arsenal	BKR	3	4/26/2019	34765	120774	19977881	574.654	3.47401	165.415
18	23953	Evergreen	EA46	3	3/15/2019	31030	108729	7832157	252.405	3.50399	72.0337
19	23645	Wolfe Run	65K	3	2/10/2019	29694	71901	8998672	303.046	2.42139	125.153
20	23733	Universal	R100	3	11/29/2018	30158	67320	7732966	256.415	2.23224	114.868
21	23882	Rankin	BKR	2	6/27/2019	25319	38848	9843953	388.797	1.53434	253.396
22	23781	Valley	WR535	2	6/24/2019	21397	31900	7515781	351.253	1.49086	235.604
23	23630	Sewickley	WR66	2	5/29/2019	26399	30748	7641677	289.468	1.16474	248.525
24	23712	Pine Creek	BKR	2	3/9/2019	19499	66971	11470403	588.255	3.43458	171.274
25	23683	Woodville	BKR	2	2/13/2019	32865	78052	11900924	362.115	2.37492	152.474
26	23821	Highland	100	2	10/20/2018	33153	14194	8208137	247.583	0.42813	578.282
27	23673	Montour	SW623 8	2	8/22/2018	45633	77837	8207121	179.850	1.70571	105.439

**CERTIFIED MAIL**



7015 1520 0000 4357 1823



1000



17120

U.S. POSTAGE PAID  
FCM LG ENV  
PITTSBURGH, PA  
15222  
JUL 31, 19

AMOUNT

**\$8.50**

R2304E105146-04



State Regulatory Coordinator  
411 Seventh Avenue, 15-7  
Pittsburgh, PA 15219

Ms. Rosemary Chiavetta, Secretary  
Pennsylvania Public Utility Commission  
Commonwealth Keystone Building  
2nd Floor, Room-N201  
400 North Street  
Harrisburg, PA 17120