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August 1, 2023

**VIA ELECTRONIC FILING**

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

Re: **Duquesne Light Company**  
**Quarterly Electric Reliability Report – 2<sup>nd</sup> Quarter 2023**  
**Docket No. ~~M-2016-2522508~~**

M-2023-3039027-AEL-8/3/23

Dear Secretary Chiavetta:

Enclosed please find Duquesne Light Company's Quarterly Electric Reliability Report for the second quarter of 2023. The report is submitted in two versions, proprietary and non-proprietary. Enclosed is the **non-proprietary** version, which can be made available to the public at the above-referenced docket. The proprietary version has been submitted via overnight mail.

If you have any questions regarding the information contained in this filing, please contact me or Megan Good at [mgood@duqlight.com](mailto:mgood@duqlight.com) or 412-393-6496.

Sincerely,

A handwritten signature in blue ink, appearing to read "LBQ", is written over a light blue horizontal line.

Lindsay A. Baxter  
Manager, Regulatory and Clean Energy Strategy

Enclosure

cc (w/ redacted version):

Dan Searfoorce ([dsearfoorc@pa.gov](mailto:dsearfoorc@pa.gov))  
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***Duquesne Light Company  
Second Quarter 2023  
Electric Reliability Report  
to the  
Pennsylvania Public Utility Commission***

***August 1, 2023***

**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 one major event that occurred on April 1, 2023.

Duquesne Light’s major outage event was caused by a thunderstorm with high winds in Allegheny and Beaver Counties that began on Saturday April 1, 2023, at 1239 hours and ended Tuesday April 4, 2023, at 1820 hours. The storm affected 67,383 of the 612,157 total customers in our service territory. A combination of rain and high winds downed trees on power lines and caused extensive damage to poles and equipment throughout Duquesne Light’s service territory in Allegheny and Beaver Counties.

- (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>2023 2Q (Rolling 12 mo.)</b>	95	0.77	122	*

\* Sufficient information to calculate MAIFI is unavailable.

Duquesne Light has been a strong performer in reliability over the past 15 years. The Company’s success in this area can be at least partially attributed to the wide deployment of intelligent devices on the system that can quickly isolate a fault to the least number of customers.

Through the second quarter of 2023 (rolling 12 months), Duquesne Light’s CAIDI is above the benchmark while meeting the 12-month standard, while SAIDI and SAIFI performance are below both the benchmark and standard. SAIDI, SAIFI and CAIDI performance is attributable to a period of stormy weather, including two PUC Reportable storm events rolling off the report from the second quarter of 2022.

The table below lists additions that were made to data in 2nd Quarter 2023, subsequent to the 1st Quarter and 2022 Annual Reports previously submitted to the Commission. The additions are the result of improved data accuracy governance that has been put in place at Duquesne Light. As a result of this change:

- 2022 SAIDI increased from 134 to 135;
- 2022 SAIFI increased from 0.92 to 0.93;
- 2022 CAIDI did not change;
- 2023 First Quarter SAIDI increased from 111 to 112; and
- 2023 First Quarter SAIFI and CAIDI did not change.

<u>New Values</u>				<u>Original Values</u>	
<b>Incident #</b>	<b>Date</b>	<b>kVA</b>	<b>kVA Min</b>	<b>kVA</b>	<b>kVA Min</b>
2252847	6/22/22	1,766	1,241,821	1,766	1,740,657
2255641	6/22/22	87	108,054	0	0
2255426	12/23/22	19,979	3,973,584	10,655	2,376,065
2255642	12/23/22	12,705	2,922,150	0	0
2352341	12/23/22	5,779	757,049	0	0

**Formulae used in calculating the indices**

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

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

$$CAIDI = \frac{SAIDI}{SAIFI}$$

**Data used in calculating the indices**

Total kVA Interrupted for the Period:	6,144,429 kVA
Total kVA-Minutes Interrupted:	752,411,100 kVA-Minutes
System Connected Load as of 6/30/23	7,932,442 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.*

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 (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 outages. 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 2023 Rolling 12-Month Circuit Data**

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>1 22869 Midland-Cooks Ferry Breaker</p>	<p>3 Total Outage(s)</p> <p>Second Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• No outage(s).</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• Two outages were caused by storms.</li> <li>• One outage was caused by wires wrapping together that caused a short circuit.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• Distribution Overhead Line Inspection performed in 2019 and all high priority repairs completed.</li> <li>• Next Overhead Line Inspection planned for 2024.</li> <li>• The Company is investigating reliability enhancements for this circuit.</li> <li>• Vegetation Management completed Q4 2022. Proposed for 2027.</li> </ul>
<p>2 23732 Universal Fuse Link</p>	<p>1 Total Outage(s)</p> <p>Second Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was by an unknown cause.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• No outage(s).</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• Distribution Overhead Line Inspection performed in 2022 and all high priority repairs completed.</li> <li>• Next Overhead Line Inspection planned for 2027.</li> <li>• The Company is investigating reliability enhancements for this circuit.</li> <li>• Vegetation Management completed Q1 2022. Proposed for 2025.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>3  23843 Arsenal  Sectionalizer</p>	<p>3 Total Outage(s)</p> <p>Second Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by tree fall-in Outside ROW.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by a storm.</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>• Distribution Overhead Line Inspection performed in 2021 and all high priority repairs completed.</li> <li>• Next Overhead Line Inspection planned for 2026.</li> <li>• The Company is investigating reliability enhancements for this circuit.</li> <li>• Vegetation Management completed Q4 2022. Proposed for 2026.</li> </ul>
<p>4  23770 Traverse Run  Breaker</p>	<p>5 Total Outage(s)</p> <p>Second Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by contact with company equipment by a vehicle.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• Two outages were caused by tree fall-in Outside ROW.</li> <li>• One outage was by an unknown cause.</li> <li>• One outage was caused by tree fall-in Inside ROW.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• Distribution Overhead Line Inspection performed in 2023 and all high priority repairs completed.</li> <li>• Next Overhead Line Inspection planned for 2028.</li> <li>• The Company is investigating reliability enhancements for this circuit.</li> <li>• Vegetation Management completed Q2 2020. Proposed for 2025.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>5  23745 Oakland  Recloser</p>	<p>3 Total Outage(s)</p> <p>Second Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by equipment failure.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• Two outages were caused by tree fall-in Outside ROW.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• Distribution Overhead Line Inspection performed in 2022 and all high priority repairs completed.</li> <li>• Overhead Line Inspection planned for 2027.</li> <li>• The Company is investigating reliability enhancements for this circuit.</li> <li>• Vegetation Management completed Q4 2020. Proposed for 2024.</li> </ul>
<p>6  23870 Mt. Nebo  Fuse Link</p>	<p>4 Total Outage(s)</p> <p>Second Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by a grow-in by tree, brush, or vines.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• Two outages were caused by tree fall-in Inside ROW.</li> <li>• One outage was caused by tree fall-in Outside ROW.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• Distribution Overhead Line Inspection performed in 2022 and all high priority repairs completed.</li> <li>• Next Overhead Line Inspection planned for 2027.</li> <li>• The Company is investigating reliability enhancements for this circuit.</li> <li>• Vegetation Management completed Q4 2021. Proposed for 2025.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>7  22358 Carnegie- Calgon  Breaker</p>	<p>1 Total Outage(s)  Second Quarter Outage(s):  <ul style="list-style-type: none"> <li>• No outage(s).</li> </ul>           Previous Outage(s):  <ul style="list-style-type: none"> <li>• One outage was caused by tree fall-in Inside ROW.</li> </ul> </p>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• Distribution Overhead Line Inspection performed in 2021 and all high priority repairs completed.</li> <li>• Overhead Line Inspection planned for 2026.</li> <li>• The Company is investigating reliability enhancements for this circuit.</li> <li>• Vegetation Management completed Q3 2021. Proposed for 2026.</li> </ul>
<p>8  23699 Brunot Island  Recloser</p>	<p>1 Total Outage(s)  Second Quarter Outage(s):  <ul style="list-style-type: none"> <li>• No outage(s).</li> </ul>           Previous Outage(s):  <ul style="list-style-type: none"> <li>• One outage was caused by a storm.</li> </ul> </p>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• Distribution Overhead Line Inspection performed in 2021 and all high priority repairs completed.</li> <li>• Next Overhead Line Inspection planned for 2026.</li> <li>• The Company is investigating reliability enhancements for this circuit.</li> <li>• Vegetation Management completed Q3 2019. Proposed for 2023.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>9  22862 Crescent- Sewickley  Breaker</p>	<p>3 Total Outage(s)</p> <p>Second Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by animal contact.</li> <li>• One outage was caused by wires wrapping together that caused a short circuit.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was by an unknown cause.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• Distribution Overhead Line Inspection performed in 2020 and all high priority repairs completed.</li> <li>• Next Overhead Line Inspection planned for 2025.</li> <li>• The Company is investigating reliability enhancements for this circuit.</li> <li>• Vegetation Management completed Q4 2021. Proposed for 2025.</li> </ul>
<p>10  23703 North  Breaker</p>	<p>2 Total Outage(s)</p> <p>Second Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by tree fall-in Outside ROW.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by high winds.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• Distribution Overhead Line Inspection performed in 2022 and all high priority repairs completed.</li> <li>• Next Overhead Line Inspection planned for 2027.</li> <li>• The Company is investigating reliability enhancements for this circuit.</li> <li>• Vegetation Management completed Q4 2021. Proposed for 2026.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>11  23716 Pine Creek  Breaker</p>	<p>6 Total Outage(s)</p> <p>Second Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• No outage(s).</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• Two outages were caused by wires wrapping together that caused short circuits.</li> <li>• One outage was caused by outside contractor work.</li> <li>• One outage was caused by loss of supply.</li> <li>• One outage was caused by a storm.</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>• Distribution Overhead Line Inspection performed in 2019 and all high priority repairs completed.</li> <li>• Next Overhead Line Inspection planned for 2024.</li> <li>• The Company is investigating reliability enhancements for this circuit.</li> <li>• Vegetation Management completed Q2 2019. Proposed for 2023.</li> </ul>
<p>12  23685 West End  Breaker</p>	<p>3 Total Outage(s)</p> <p>Second Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• No outage(s).</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• Two outages were caused by contact with company equipment by vehicle.</li> <li>• One outage was caused by high winds.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• Distribution Overhead Line Inspection performed in 2021 and all high priority repairs completed.</li> <li>• Next Overhead Line Inspection planned for 2026.</li> <li>• The Company is investigating reliability enhancements for this circuit.</li> <li>• Vegetation Management completed Q3 2019. Proposed for 2023.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>13 23688 Chess Sectionalizer</p>	<p>1 Total Outage(s)</p> <p>Second Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by tree fall-in Inside ROW.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• No outage(s).</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• Distribution Overhead Line Inspection performed in 2021 and all high priority repairs completed.</li> <li>• Next Overhead Line Inspection planned for 2026.</li> <li>• The Company is investigating reliability enhancements for this circuit.</li> <li>• Vegetation Management completed Q4 2018. Proposed for 2023.</li> </ul>
<p>14 23682 Woodville Recloser</p>	<p>2 Total Outage(s)</p> <p>Second Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• No outage(s).</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• Two outages were caused by tree fall-in Outside ROW.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• Distribution Overhead Line Inspection performed in 2023 and all high priority repairs completed.</li> <li>• Next Overhead Line Inspection planned for 2028.</li> <li>• The Company is investigating reliability enhancements for this circuit.</li> <li>• Vegetation Management completed Q4 2020. Proposed for 2025.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>15  23706 North  Fuse Link</p>	<p>2 Total Outage(s)</p> <p>Second Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by equipment failure.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by high winds.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• Distribution Overhead Line Inspection performed in 2021 and all high priority repairs completed.</li> <li>• Next Overhead Line Inspection planned for 2026.</li> <li>• The Company is investigating reliability enhancements for this circuit.</li> <li>• Vegetation Management completed Q4 2022. Proposed for 2026.</li> </ul>
<p>16  23708 North  Fuse Link</p>	<p>1 Total Outage(s)</p> <p>Second Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was by an unknown cause.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• No outage(s).</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• Distribution Overhead Line Inspection performed in 2022 and all high priority repairs completed.</li> <li>• Next Overhead Line Inspection planned for 2027.</li> <li>• The Company is investigating reliability enhancements for this circuit.</li> <li>• Vegetation Management completed Q2 2018. Proposed for 2024.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>17  23709 North  Fuse Link</p>	<p>2 Total Outage(s)</p> <p>Second Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was by an unknown cause.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by tree fall-in Outside ROW.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• Distribution Overhead Line Inspection performed in 2022 and all high priority repairs completed.</li> <li>• Next Overhead Line Inspection planned for 2027.</li> <li>• The Company is investigating reliability enhancements for this circuit.</li> <li>• Vegetation Management completed Q4 2022. Proposed for 2027.</li> </ul>
<p>18  23842 Arsenal  Recloser</p>	<p>4 Total Outage(s)</p> <p>Second Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by tree fall-in Inside ROW.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by a storm.</li> <li>• One outage was caused by tree fall-in Outside ROW.</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>• Distribution Overhead Line Inspection performed in 2020 and all high priority repairs completed.</li> <li>• Next Overhead Line Inspection planned for 2025.</li> <li>• The Company is investigating reliability enhancements for this circuit.</li> <li>• Vegetation Management completed Q4 2022. Proposed for 2026.</li> </ul>
<p>19  23681 Woodville  Fuse Link</p>	<p>1 Total Outage(s)</p> <p>Second Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by tree fall-in Outside ROW.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• No outage(s).</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• Distribution Overhead Line Inspection performed in 2019 and all high priority repairs completed.</li> <li>• Next Overhead Line Inspection planned for 2024.</li> <li>• The Company is investigating reliability enhancements for this circuit.</li> <li>• Vegetation Management completed Q4 2021. Proposed for 2026.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>20  23921 Logans Ferry  Sectionalizer</p>	<p>3 Total Outage(s)</p> <p>Second Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by tree fall-in Outside ROW.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by tree fall-in Inside ROW.</li> <li>• One outage was by an unknown cause.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• Distribution Overhead Line Inspection performed in 2022 and all high priority repairs completed.</li> <li>• Next Overhead Line Inspection planned for 2027.</li> <li>• The Company is investigating reliability enhancements for this circuit.</li> <li>• Vegetation Management completed Q4 2020. Proposed for 2024</li> </ul>
<p>21  23698 Brunot Island  Fuse Link</p>	<p>1 Total Outage(s)</p> <p>Second Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by equipment failure.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• No outage(s).</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• Distribution Overhead Line Inspection performed in 2019 and all high priority repairs completed.</li> <li>• Next Overhead Line Inspection planned for 2024.</li> <li>• The Company is investigating reliability enhancements for this circuit.</li> <li>• Vegetation Management completed Q1 2019. Proposed for 2023.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>22  23646 Wolfe Run  Sectionalizer</p>	<p>2 Total Outage(s)</p> <p>Second Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by equipment failure.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by high winds.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• Distribution Overhead Line Inspection performed in 2023 and all high priority repairs completed.</li> <li>• Next Overhead Line Inspection planned for 2028.</li> <li>• The Company is investigating reliability enhancements for this circuit.</li> <li>• Vegetation Management completed Q3 2018. Proposed for 2023.</li> </ul>
<p>23  23781 Valley  Breaker</p>	<p>4 Total Outage(s)</p> <p>Second Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• No outage(s).</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• Two outages were caused by equipment failure.</li> <li>• One outage was caused by tree fall-in Outside ROW.</li> <li>• One outage was caused by wires wrapping together which caused a short circuit.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• Distribution Overhead Line Inspection performed in 2023 and all high priority repairs completed.</li> <li>• Next Overhead Line Inspection planned for 2028.</li> <li>• The Company is investigating reliability enhancements for this circuit.</li> <li>• Vegetation Management completed Q3 2018. Proposed for 2023.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>24  23761 Wilmerding  Fuse Link</p>	<p>4 Total Outage(s)</p> <p>Second Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• No outage(s).</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• Two outages were caused by storms.</li> <li>• One outage was caused by high winds.</li> <li>• One outage was caused by tree fall-in Outside ROW.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• Distribution Overhead Line Inspection performed in 2021 and all high priority repairs completed.</li> <li>• Next Overhead Line Inspection planned for 2026.</li> <li>• The Company is investigating reliability enhancements for this circuit.</li> <li>• Vegetation Management completed Q4 2017. Proposed for 2023.</li> </ul>
<p>25  23881 Rankin  Fuse Link</p>	<p>2 Total Outage(s)</p> <p>Second Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• No outage(s).</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was by an unknown cause.</li> <li>• One outage was caused by a storm.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• Distribution Overhead Line Inspection performed in 2021 and all high priority repairs completed.</li> <li>• Next Overhead Line Inspection planned for 2026.</li> <li>• The Company is investigating reliability enhancements for this circuit.</li> <li>• Vegetation Management completed Q2 2017. Proposed for 2023.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>26  23683 Woodville  Recloser</p>	<p>5 Total Outage(s)</p> <p>Second Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• No outage(s).</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• Four outages were caused by equipment failure.</li> <li>• One outage was caused by high winds.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• Distribution Overhead Line Inspection performed in 2022 and all high priority repairs completed.</li> <li>• Next Overhead Line Inspection planned for 2027.</li> <li>• The Company is investigating reliability enhancements for this circuit.</li> <li>• Vegetation Management completed Q4 2021. Proposed for 2026.</li> </ul>
<p>27  23640 Midland  Fuse Link</p>	<p>4 Total Outage(s)</p> <p>Second Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by tree fall-in Outside ROW.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by animal contact.</li> <li>• One outage was caused by lightning.</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>• Distribution Overhead Line Inspection performed in 2022 and all high priority repairs completed.</li> <li>• Next Overhead Line Inspection planned for 2027.</li> <li>• The Company is investigating reliability enhancements for this circuit.</li> <li>• Vegetation Management completed Q4 2018 Proposed for 2024.</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, 2022 through June 30, 2023  
 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>
Storms	352	13%	1,103,503	18%	196,658,279	26%
Trees (Inside ROW)	265	10%	377,515	6%	64,297,750	9%
Trees (Outside ROW)	688	26%	1,202,721	20%	182,223,772	24%
Equipment Failures	629	24%	1,880,720	31%	174,814,289	23%
Overloads	10	0%	15,884	0%	3,143,614	0%
Vehicles	164	6%	513,630	8%	51,676,545	7%
Contact/Dig In	34	1%	82,835	1%	9,348,943	1%
Animal Contact	109	4%	166,235	3%	14,423,352	2%
Unknown	286	11%	444,194	7%	25,585,652	3%
Other	136	5%	357,192	6%	30,238,904	4%
<b>TOTALS</b>	<b>2,673</b>	<b>100%</b>	<b>6,144,429</b>	<b>100%</b>	<b>752,411,100</b>	<b>100%</b>

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

<b>2023 Transmission and Distribution Goals and Objectives</b>							
<b>Program Project</b>	<b>Unit of Measurement</b>	<b>Target for 2023 2Q</b>	<b>Actual for 2023 2Q</b>	<b>2Q % Complete</b>	<b>Targets for Year 2023</b>	<b>Actual YTD for 2023</b>	<b>Year End % Complete</b>
<b>Communications Goals</b>							
Communication Battery Maintenance	Batteries	31	30	97%	124	57	46%
<b>Overhead Distribution Goals</b>							
Recloser Inspections	Circuits	39	48	123%	129	105	81%
Pole Inspections	Poles	6,668	6,755	101%	17,695	9,582	54%
OH Line Inspections	Circuits	39	48	123%	129	105	81%
OH Transformer Inspections	Circuits	39	48	123%	129	105	81%
Padmount & Below Grade Insp	Circuits	0	0	N/A	82	82	100%
<b>Overhead Transmission Goals</b>							
Helicopter Inspections	Circuits	23	6	26%	23	6	26%
Ground Inspections	Structures	0	0	N/A	283	283	100%
<b>Substations Goals</b>							
Circuit Breaker Maintenance	Breakers	235	59	25%	515	282	55%
Station Transformer Maintenance	Transformers	49	27	55%	55	38	69%
Station Battery Maintenance	Batteries	214	198	93%	856	428	48%
Station Relay Maintenance	Relays	551	372	68%	1,382	693	50%
Station Inspections	Sites	471	471	100%	1,884	942	50%
<b>Underground Distribution Goals</b>							
Manhole Inspections	Manholes	300	52	17%	700	137	20%
Major Network Insp (Prot Relay)	Ntwk Protectors	46	21	46%	92	25	27%
Minor Network Visual Inspection (Transformer/Protector/Vault)	Ntwk Transformers	266	50	19%	576	565	98%
<b>Underground Transmission Goals</b>							
Pressurization and Cathodic Protection Plant Inspection	Work Orders	105	106	100%	424	208	49%
<b>Vegetation Management Goals</b>							
Overhead Line Clearance	Circuit Overhead Miles	335	250	76%	1,300	597	46%

*(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, 2023  
 (In Whole Dollars)  
 Favorable/(Unfavorable)

	<b>Total Actual</b>	<b>Total Budget</b>	<b>Variance</b>
<b>Customer Service</b>	\$17,054,064	\$14,668,922	(\$2,385,142)
<b>Human Resources</b>	\$6,933,407	\$6,087,795	(\$845,612)
<b>Operations/Operation Services</b>	\$11,559,607	\$11,925,781	\$366,174
<b>Technology</b>	\$12,494,598	\$12,313,869	(\$180,729)
<b>General Corporate*</b>	\$19,070,534	\$18,967,248	(\$103,286)
<b>Total</b>	<b>\$67,112,210</b>	<b>\$63,963,615</b>	<b>(\$3,148,595)</b>

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

Budget Variance Recap – O&M Expenses  
 Year to Date through June 30, 2023  
 (In Whole Dollars)  
 Favorable/(Unfavorable)

	<b>Total Actual</b>	<b>Total Budget</b>	<b>Variance</b>
<b>Customer Service</b>	\$31,881,460	\$28,379,388	(\$3,502,072)
<b>Human Resources</b>	\$13,331,771	\$11,365,395	(\$1,966,376)
<b>Operations/Operation Services</b>	\$25,155,820	\$25,278,572	\$122,752
<b>Technology</b>	\$25,310,478	\$24,976,826	(\$333,652)
<b>General Corporate*</b>	\$39,071,798	\$37,980,976	(\$1,090,882)
<b>Total</b>	<b>\$134,751,327</b>	<b>\$127,981,157</b>	<b>(\$6,770,170)</b>

\*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, 2023  
 (In Whole Dollars)  
 Favorable/(Unfavorable)

	<b>Total Actual</b>	<b>Total Budget</b>	<b>Variance</b>
<b>Customer Service</b>	\$3,571,674	\$3,950,908	\$379,234
<b>Human Resources</b>	\$5,191,273	\$4,357,230	(\$834,043)
<b>Operations/Operation Services</b>	\$73,028,551	\$80,018,330	\$6,989,779
<b>Technology</b>	\$13,884,729	\$10,502,047	(\$3,342,682)
<b>General Corporate*</b>	\$26,188,768	\$16,212,421	(\$9,976,347)
<b>Total</b>	<b>\$121,824,995</b>	<b>\$115,040,936</b>	<b>(\$6,784,059)</b>

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

Budget Variance Recap – Capital  
 Year to Date through June 30, 2023  
 (In Whole Dollars)  
 Favorable/(Unfavorable)

	<b>Total Actual</b>	<b>Total Budget</b>	<b>Variance</b>
<b>Customer Service</b>	\$6,603,691	\$7,760,380	\$1,156,689
<b>Human Resources</b>	\$10,002,307	\$8,626,098	(\$1,376,209)
<b>Operations/Operation Services</b>	\$142,451,377	\$163,997,650	\$21,546,273
<b>Technology</b>	\$22,615,303	\$20,860,343	(\$1,754,960)
<b>General Corporate*</b>	\$48,212,706	\$32,556,886	(\$15,655,820)
<b>Total</b>	<b>\$229,885,384</b>	<b>\$233,801,357</b>	<b>\$3,915,973</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	6
Electronic Technician	18
Telecom Technician	2
<b>Total Telecom</b>	<b>26</b>
Electrical Equipment Technician	38
Protection & Control Technician	36
Yard Group Leader	3
Rigger	5
Laborer	4
<b>Total Substation</b>	<b>86</b>
UG Splicer	41
UG Cable Inspector	10
Cable Tester	1
Network Operator	11
Equipment Material Handler	1
<b>Total Underground</b>	<b>64</b>
Apprentice T&D	0
Equipment Attendant	1
Lineworker	125
Service Crew Leader	4
Equipment Material Handler	4
<b>Total Overhead</b>	<b>134</b>
Right of Way Agent	6
Surveyor	4
<b>Total Real Estate</b>	<b>10</b>
<b>Total Street Light Changer</b>	<b>5</b>
Engineering Technician	50
GIS Technician	12
T&D Mobile Worker	8
Test Technician, Mobile	5
<b>Total Engineering</b>	<b>75</b>
Senior Operator Apprentice	67
Senior Operator	38
Troubleshooter	13
<b>Total Senior Operator/Troubleshooter</b>	<b>118</b>
<b>Total Switching Dispatcher</b>	<b>14</b>
<b>Total Employees</b>	<b>532</b>

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

**CONFIDENTIAL INFORMATION**

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 – 2<sup>nd</sup> Quarter 2023**

**REDACTED**

**Amount of Time it Takes to Obtain the Necessary Personnel – 2<sup>nd</sup> Quarter 2023**

**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 Thimons – General Manager, Asset Management  
(412) 393-8639, [mthimons@duqlight.com](mailto:mthimons@duqlight.com)

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Jason Keller – Director, Operations Center  
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**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.<sup>1</sup>*

Rank	Circuit No	Circuit Name	Equipment Type	Device	Last Lockout	Ckt KVA	Total KVA Min Interrupted	Total KVA Interrupted	SAIDI	SAIFI	CAIDI
1	22869	Midland-Cooks Ferry	S.S. BREAKER	BREAKER	2022-09-25	31120	18789511	97383	603.77606	3.129272	192.944466
2	23732	Universal	FUSE LINK	Pole # 296218	2023-06-01	22910	17973328	41522	784.518899	1.812396	432.862771
3	23843	Arsenal	SECTIONALIZER	WA478	2023-06-27	22975	16299395	34568	709.440477	1.504591	471.516865
4	23770	Traverse Run	S.S. BREAKER	BREAKER	2023-05-03	18265	15400889	98238	843.191294	5.378483	156.771198
5	23745	Oakland	RECLOSER	ER200	2023-05-01	30223	12062986	35518	408.696134	1.200724	339.630215
6	23870	Mt. Nebo	FUSE LINK	Pole # 208	2023-06-26	33392	11767005	74705	352.389943	2.237211	157.51295
7	22358	Carnegie-Calgon	S.S. BREAKER	BREAKER	2022-07-23	11000	11475000	8500	1043.181818	0.772727	1350
8	23699	Brunot Is.	RECLOSER	ER139	2022-12-23	28247	11270054	15180	406.479547	0.547216	742.427799
9	22862	Crescent-Sewickley	S.S. BREAKER	BREAKER	2023-04-17	20413	10833644	67632	530.722774	3.313182	160.185178
10	23703	North	S.S. BREAKER	BREAKER	2023-06-19	24673	10674110	61323	477.002474	2.670738	174.063728
11	23716	Pine Creek	S.S. BREAKER	BREAKER	2022-11-05	35398	10492911	154097	296.426661	4.353267	68.092896
12	23685	West End	S.S. BREAKER	BREAKER	2023-02-23	19815	10413753	48416	533.751856	2.471942	215.089082
13	23688	Chess	SECTIONALIZER	EA871	2023-06-03	26483	9374588	91592	353.985121	3.45852	102.351602
14	23682	Woodville	RECLOSER	ER274	2023-01-26	32304	8716697	60607	283.466222	1.973691	143.823271
15	23706	North	FUSE LINK	Pole # 99838	2023-04-17	32220	8554486	49501	265.502358	1.536342	172.814407
16	23708	North	FUSE LINK	Pole # 184486	2023-06-05	32312	8247698	87399	264.274805	2.801606	94.368333
17	23709	North	FUSE LINK	Pole # 94015	2023-04-16	25182	8242075	58239	329.903878	2.318839	141.521574
18	23842	Arsenal	RECLOSER	WR451	2023-05-04	33185	8009602	81066	241.362121	2.442849	98.803468
19	23681	Woodville	FUSE LINK	Pole # 717	2023-06-15	32960	7923867	38321	240.408585	1.16265	206.776101
20	23921	Logans Ferry	SECTIONALIZER	EA1155	2023-06-14	30891	7300547	138379	236.332491	4.479589	52.757622
21	23698	Brunot Is.	FUSE LINK	Pole # 138528	2023-04-29	21606	7284126	27926	337.134406	1.29251	260.836711
22	23646	Wolfe Run	SECTIONALIZER	WA38	2023-04-05	32060	7254161	83615	226.268277	2.608077	86.756694
23	23781	Valley	S.S. BREAKER	BREAKER	2023-02-15	22318	7253164	92352	324.991665	4.138004	78.538244
24	23761	Wilmerding	FUSE LINK	Pole # 129788	2023-03-04	31579	7177298	69562	227.280723	2.202792	103.17843
25	23881	Rankin	FUSE LINK	Pole # 329731	2022-12-23	21002	7044538	25695	335.422244	1.223454	274.159875
26	23683	Woodville	RECLOSER	ER644	2023-03-03	32865	7036360	72391	214.098889	2.202676	97.199375
27	23640	Midland	FUSE LINK	Pole # 125426	2023-06-30	31306	6971955	91634	222.703474	2.927042	76.084804

<sup>1</sup> The “Device” column indicates the device that most frequently operated and locked out in response to a fault.