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January 31, 2024

**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 – 4<sup>th</sup> Quarter 2023**  
**Docket No. M-2023-3039027**

Dear Secretary Chiavetta:

Enclosed please find Duquesne Light Company's Quarterly Electric Reliability Report for the fourth 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 Mary Kellam at [mkellam@duqlight.com](mailto:mkellam@duqlight.com) or 412-393-6099.

Sincerely,

A handwritten signature in blue ink that reads "Smaye".

Shelly-Ann Maye  
Senior Manager, Regulatory Performance

Enclosure

cc (w/ redacted version):

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

***January 31, 2024***

**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 in the fourth quarter.

(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 4Q (Rolling 12 mo.)</b>	63.11	0.57	110	*

\* 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 fourth 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. In addition to reduced storm activity through the summer and fall of 2023, Duquesne Light attributes its strong SAIDI, SAIFI, and CAIDI performance to its ongoing vegetation management efforts, expanded backshift and weekend staffing, focus on continuing deployment and maintenance of remotely operable pole-top devices, and efforts taken to improve Company storm prediction and response.

The table below lists additions that were made to data in 4th Quarter 2023, subsequent to the 3rd 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. There were no impacts to previously reported KPIs as a result of these changes.<sup>1</sup>

<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>
2353904	7/14/2023	2,167	662,969	0	0
2354503	8/30/2023	1,643	510,973	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:	4,548,453 kVA
Total kVA-Minutes Interrupted:	499,592,066 kVA-Minutes
System Connected Load as of 12/31/23	7,932,442 kVA

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<sup>1</sup> The data provided here in section (e)(2) does not reflect any incidents or corrections made to date as a result of the IT application issue noted in the third quarter report, as the investigation and resolution of its impacts are still ongoing.

**(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).**

**Fourth 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 23770 Traverse Run  Recloser</p>	<p>3 Total Outage(s)            Fourth 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 Outside ROW.</li> <li>• One outage was caused by contact with company equipment by vehicle.</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. Performed mid-cycle maintenance Q4 2023. Next maintenance proposed for 2025.</li> </ul>
<p>2 23675 Montour  Recloser</p>	<p>3 Total Outage(s)            Fourth 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 caused by tree fall-in Outside ROW.</li> <li>• One outage was caused by high winds.</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 2020. Performed mid-cycle maintenance Q4 2023. Next maintenance proposed for 2025.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>3 23709 North  Sectionalizer</p>	<p>3 Total Outage(s)            Fourth Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by tree fall-in Outside ROW.</li> <li>• One outage was caused by a storm.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by contact with company equipment by vehicle.</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. Next maintenance proposed for 2027.</li> </ul>
<p>4 23688 Chess  Fuse Link</p>	<p>1 Total Outage(s)            Fourth 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 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 2018. Next maintenance proposed for 2024.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>5 23868 Wildwood Fuse Link</p>	<p>2 Total Outage(s)            Fourth 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 caused by tree fall-in Outside 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 2020 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 2020. Next maintenance proposed for 2025.</li> </ul>
<p>6 23870 Mt. Nebo Fuse Link</p>	<p>4 Total Outage(s)            Fourth 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>• Two outages were caused by tree fall-in Outside ROW.</li> <li>• One outage was caused by contact with company equipment by vehicle.</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. Performed mid-cycle maintenance Q4 2023. Next maintenance proposed for 2025.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>7 23650 Neville  Fuse Link</p>	<p>2 Total Outage(s)            Fourth 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 caused by contact with company equipment by vehicle.</li> <li>• One outage was caused by animal contact.</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 Q3 2023. Next maintenance proposed for 2027.</li> </ul>
<p>8 23921 Logans Ferry  Fuse Link</p>	<p>3 Total Outage(s)            Fourth Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• Two outages were by unknown causes.</li> <li>• One outage was caused by grow-in by tree, brush, or vines.</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 Q4 2020. Next maintenance proposed for 2025.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>9 22869 Midland-Cooks Ferry  Recloser</p>	<p>2 Total Outage(s)            Fourth 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 voltage surge or lightning.</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. Performed mid-cycle maintenance Q4 2023. Next maintenance proposed for 2027.</li> </ul>
<p>10 22366 Woodville- Kirwan  Circuit Manually De- Energized</p>	<p>1 Total Outage(s)            Fourth 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 caused by high current.</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 2020. Next maintenance proposed for 2025.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>11 22862 Crescent-Sewickley S.S. Breaker</p>	<p>2 Total Outage(s)            Fourth 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 caused by animal contact.</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 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. Next maintenance proposed for 2025.</li> </ul>
<p>12 23713 Pine Creek Recloser</p>	<p>3 Total Outage(s)            Fourth 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 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 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. Performed mid-cycle maintenance Q4 2023. Next maintenance proposed for 2025.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>13 23646 Wolfe Run Fuse Link</p>	<p>2 Total Outage(s)            Fourth 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 Q4 2023. Next maintenance proposed for 2029.</li> </ul>
<p>14 23714 Pine Creek Fuse Link</p>	<p>4 Total Outage(s)            Fourth 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>• Three 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 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 2018. Next maintenance proposed for 2024.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>15 23683 Woodville  Recloser</p>	<p>4 Total Outage(s)            Fourth 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>• Three 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. Next maintenance proposed for 2026.</li> </ul>
<p>16 4687 Lewis Run  S.S. Breaker</p>	<p>1 Total Outage(s)            Fourth 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 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. Next maintenance proposed for 2026.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>17 23682 Woodville  Fuse Link</p>	<p>1 Total Outage(s)            Fourth Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by animal contact.</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 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. Performed mid-cycle maintenance Q4 2023. Next maintenance proposed for 2025.</li> </ul>
<p>18 23685 West End  S.S. Breaker</p>	<p>2 Total Outage(s)            Fourth 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 contact with company equipment by vehicle.</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 2023. Next maintenance proposed for 2029.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>19 22150 Wilmerding-Rankin No.3  S.S. Breaker</p>	<p>2 Total Outage(s)            Fourth 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 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 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. Next maintenance proposed for 2025.</li> </ul>
<p>20 23614 Findlay  Recloser</p>	<p>2 Total Outage(s)            Fourth 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 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 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 2021. Performed mid-cycle maintenance Q4 2023. Next maintenance proposed for 2026.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>21 23920 Logans Ferry  Fuse Link</p>	<p>7 Total Outage(s)            Fourth 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>• Four outages were by unknown causes.</li> <li>• One outage was caused by tree fall-in Inside 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 2019 and all high priority repairs completed.</li> <li>• Overhead Line Inspection is currently being conducted on this circuit (2024).</li> <li>• The Company is investigating reliability enhancements for this circuit.</li> <li>• Vegetation Management completed Q2 2020. Next maintenance proposed for 2025.</li> </ul>
<p>22 23640 Midland  Recloser</p>	<p>5 Total Outage(s)            Fourth Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by contact with company equipment by vehicle.</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> <li>• One outage was caused by high winds.</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. Next maintenance proposed for 2024.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>23 23803 Elwyn  Recloser</p>	<p>2 Total Outage(s)            Fourth 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 caused by tree fall-in Outside ROW.</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 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 2018. Next maintenance proposed for 2024.</li> </ul>
<p>24 23900 Plum  S.S. Breaker</p>	<p>2 Total Outage(s)            Fourth 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 caused by contact with company equipment by vehicle.</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 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 2021. Next maintenance proposed for 2026.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>25 23613 Findlay Recloser</p>	<p>2 Total Outage(s)            Fourth 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 caused by animal contact.</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 2021. Next maintenance proposed for 2026.</li> </ul>
<p>26 23696 Brunot Island Sectionalizer</p>	<p>2 Total Outage(s)            Fourth 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 caused by a dig in.</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 Q1 2019. Next maintenance proposed for 2024.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p style="text-align: center;">27 4601 Rankin  S.S. Breaker</p>	<p>2 Total Outage(s)            Fourth 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 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 2023. Next maintenance proposed for 2028.</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.

**January 1, 2023 through December 31, 2023**  
**No 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	163	7%	423,592	9%	46,313,499	9%
Trees (Inside ROW)	218	10%	328,067	7%	42,668,636	9%
Trees (Outside ROW)	632	28%	1,022,714	22%	148,376,145	30%
Equipment Failures	530	24%	1,513,140	33%	139,113,187	28%
Overloads	15	1%	26,813	1%	10,019,834	2%
Vehicles	167	7%	495,367	11%	56,226,927	11%
Contact/Dig In	34	2%	88,784	2%	9,284,154	2%
Animal Contact	104	5%	139,270	3%	10,559,986	2%
Unknown	273	12%	312,731	7%	16,394,752	3%
Other	115	5%	197,975	4%	20,634,946	4%
<b>TOTALS</b>	<b>2,251</b>	<b>100%</b>	<b>4,548,453</b>	<b>100%</b>	<b>499,592,066</b>	<b>100%</b>

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

2023 Transmission and Distribution Goals and Objectives							
Program Project	Unit of Measurement	Target for 2023 4Q	Actual for 2023 4Q	4Q % Complete	Targets for Year 2023	Actual YTD for 2023	Year End % Complete
<b>Communications Goals</b>							
Communication Battery Maintenance	Batteries	31	30	97%	124	123*	99%
<b>Overhead Distribution Goals</b>							
Recloser Inspections	Circuits	17	22	129%	129	156	121%
Pole Inspections	Poles	2181	947	43%	17,695	16,665	94%
OH Line Inspections	Circuits	17	22	129%	129	156	121%
OH Transformer Inspections	Circuits	17	22	129%	129	156	121%
Padmount & Below Grade Insp	Circuits	0	0	N/A	82	82	100%
<b>Overhead Transmission Goals</b>							
Helicopter Inspections	Circuits	0	0	N/A	23	23	100%
Ground Inspections	Structures	165	0	0%	283	283	100%
<b>Substations Goals</b>							
Circuit Breaker Maintenance	Breakers	42	118	281%	515	488	95%
Station Transformer Maintenance	Transformers	0	12	N/A	55	55	100%
Station Battery Maintenance	Batteries	214	240	112%	856	850	99%
Station Relay Maintenance	Relays	0	233	N/A	1,382	1,336	97%
Station Inspections	Sites	471	471	100%	1,884	1,884	100%
<b>Underground Distribution Goals</b>							
Manhole Inspections	Manholes	0	221	N/A	700	738*	105%
Major Network Insp (Prot Relay)	Ntwk Protectors	0	14	N/A	92	93	101%
Minor Network Visual Inspection (Transformer/Protector/Vault)	Ntwk Transformers	0	0	N/A	576	565	98%
<b>Underground Transmission Goals</b>							
Pressurization and Cathodic Protection Plant Inspection	Work Orders	108	106	98%	424	419	99%
<b>Vegetation Management Goals</b>							
Overhead Line Clearance	Circuit Overhead Miles	265	427	161%	1,300	1,300	100%

\* Actual YTD for 2023 includes additional completed inspection and maintenance work identified in a year-end review.

**(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 December 31, 2023  
(In Whole Dollars)  
Favorable/(Unfavorable)

	<b>Total Actual</b>	<b>Total Budget</b>	<b>Variance</b>
<b>Customer Service</b>	\$22,877,659	\$19,016,149	\$ (3,861,510)
<b>Human Resources</b>	\$6,020,472	\$5,224,893	\$ (795,579)
<b>Operations/Operation Services</b>	\$12,576,017	\$11,088,813	\$ (1,487,204)
<b>Technology</b>	\$11,841,632	\$13,233,405	\$1,391,773
<b>General Corporate*</b>	\$17,908,601	\$19,409,813	\$1,501,212
<b>Total</b>	\$71,224,381	\$67,973,073	\$ (3,251,308)

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

Budget Variance Recap – O&M Expenses  
Year to Date through December 31, 2023  
(In Whole Dollars)  
Favorable/(Unfavorable)

	<b>Total Actual</b>	<b>Total Budget</b>	<b>Variance</b>
<b>Customer Service</b>	\$79,061,207	\$67,565,574	\$ (11,495,633)
<b>Human Resources</b>	\$25,461,429	\$22,005,380	\$ (3,456,049)
<b>Operations/Operation Services</b>	\$51,342,954	\$49,199,680	\$ (2,143,274)
<b>Technology</b>	\$49,218,013	\$50,388,739	\$1,170,726
<b>General Corporate*</b>	\$74,537,469	\$75,264,350	\$726,881
<b>Total</b>	279,621,072	\$264,423,723	\$ (15,197,349)

\*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 December 31, 2023  
(In Whole Dollars)  
Favorable/(Unfavorable)

	<b>Total Actual</b>	<b>Total Budget</b>	<b>Variance</b>
<b>Customer Service</b>	\$3,110,696	\$2,956,811	\$ (153,885)
<b>Human Resources</b>	\$4,269,832	\$4,116,116	\$ (153,716)
<b>Operations/Operation Services</b>	\$78,270,098	\$76,826,936	\$ (1,443,162)
<b>Technology</b>	\$10,929,264	\$7,459,217	\$ (3,470,047)
<b>General Corporate*</b>	\$22,779,898	\$15,807,772	\$ (6,972,126)
<b>Total</b>	\$119,359,788	\$107,166,852	\$ (12,192,936)

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

Budget Variance Recap – Capital  
Year to Date through December 31, 2023  
(In Whole Dollars)  
Favorable/(Unfavorable)

	<b>Total Actual</b>	<b>Total Budget</b>	<b>Variance</b>
<b>Customer Service</b>	\$13,045,730	\$14,841,588	\$1,795,858
<b>Human Resources</b>	\$20,197,758	\$16,872,423	\$ (3,325,335)
<b>Operations/Operation Services</b>	\$304,196,153	\$320,316,012	\$16,119,859
<b>Technology</b>	\$43,790,570	\$38,125,005	\$ (5,665,565)
<b>General Corporate*</b>	\$94,737,060	\$65,456,874	\$ (29,280,186)
<b>Total</b>	\$475,967,271	\$455,611,902	\$ (20,355,369)

\*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	5
Electronic Technician	14
Telecom Technician	2
<b>Total Telecom</b>	<b>21</b>
Electrical Equipment Technician	38
Protection & Control Technician	36
Yard Group Leader	2
Rigger	5
Laborer	4
<b>Total Substation</b>	<b>85</b>
UG Splicer	43
UG Cable Inspector	10
Cable Tester	1
Network Operator	11
Equipment Material Handler	1
<b>Total Underground</b>	<b>66</b>
Apprentice T&D	0
General Lineworker Apprentice	71
Equipment Attendant	1
Lineworker	122
Service Crew Leader	5
Equipment Material Handler	4
<b>Total Overhead</b>	<b>203</b>
Right of Way Agent	5
Surveyor	4
<b>Total Real Estate</b>	<b>9</b>
<b>Total Street Light Changer</b>	<b>4</b>
Engineering Technician	53
GIS Technician	10
T&D Mobile Worker	7
Test Technician, Mobile	5
<b>Total Engineering</b>	<b>75</b>
Senior Operator	38
Troubleshooter	13
<b>Total Senior Operator/Troubleshooter</b>	<b>51</b>
<b>Total Switching Dispatcher</b>	<b>11</b>
<b>Total Employees</b>	<b>525</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 – 4<sup>th</sup> Quarter 2023**

**REDACTED**

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

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

Jason Keller – Director, 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.<sup>2</sup>*

Rank	Circuit No	Circuit Name	Equipment Type	Device	Last Lockout	Ckt KVA	Total KVA Min Interrupted	Total KVA Interrupted	SAIDI	SAIFI	CAIDI
1	23770	Traverse Run	RECLOSER	WR545	2023-12-25	18265	10208404	88210	558.905228	4.829455	115.72842
2	23675	Montour	RECLOSER	ER253	2023-07-29	26130	9736380	87955	372.613088	3.366054	110.697288
3	23709	North	SECTIONALIZER	WA449	2023-10-30	25182	9633140	91752	382.540703	3.643554	104.991062
4	23688	Chess	FUSE LINK	Pole # 334032	2023-08-31	26483	9394296	57699	354.729298	2.178718	162.815577
5	23868	Wildwood	FUSE LINK	Pole # 62970	2023-09-07	33034	9104442	71878	275.608221	2.175879	126.66521
6	23870	Mt. Nebo	FUSE LINK	Pole # 226181	2023-11-21	33392	8895426	103292	266.393926	3.093315	86.119215
7	23650	Neville	FUSE LINK	Pole # 118003	2023-07-06	38327	8791382	53506	229.378297	1.396039	164.30647
8	23921	Logans Ferry	FUSE LINK	Pole # 662	2023-11-09	30891	8020568	76828	259.640931	2.487067	104.396417
9	22869	Midland-Cooks Ferry	RECLOSER	WR482	2023-11-03	31120	7863178	65410	252.672814	2.101863	120.213698
10	22366	Woodville-Kirwan	Circuit Manually De-Energized	SWA180	2023-07-31	8112	7500065	15652	924.564225	1.929487	479.176143
11	22862	Crescent-Sewickley	S.S. BREAKER	BREAKER	2023-04-17	20413	7022056	45088	343.999216	2.208788	155.741128
12	23713	Pine Creek	RECLOSER	WR1004	2023-11-07	28974	6768736	72384	233.614136	2.498239	93.511494
13	23646	Wolfe Run	FUSE LINK	Pole # 222138	2023-10-09	32060	6100834	76086	190.29426	2.373237	80.183397
14	23714	Pine Creek	FUSE LINK	Pole # 164271	2023-08-23	32875	5511046	35095	167.63638	1.067528	157.032226
15	23683	Woodville	RECLOSER	ER644	2023-03-03	32865	5259947	51867	160.04707	1.578182	101.412208
16	4687	Lewis Run	S.S. BREAKER	BREAKER	2023-08-25	6441	5188364	8633	805.521502	1.340319	600.992007
17	23682	Woodville	FUSE LINK	Pole # 254712	2023-12-29	32304	5177465	27759	160.273185	0.859305	186.514824
18	23685	West End	S.S. BREAKER	BREAKER	2023-11-21	19815	5109421	43879	257.85622	2.214433	116.443423
19	22150	Wilmerding-Rankin No.3	S.S. BREAKER	BREAKER	2023-06-14	8269	5096142	56514	616.294836	6.834441	90.174859
20	23614	Findlay	RECLOSER	WR634	2023-05-01	30512	5088710	21537	166.777333	0.705853	236.277568
21	23920	Logans Ferry	FUSE LINK	Pole # 264760	2023-10-29	26336	4990902	45223	189.508733	1.717155	110.362028
22	23640	Midland	RECLOSER	WR595	2023-10-01	31306	4852945	97802	155.01645	3.124065	49.620099
23	23803	Elwyn	RECLOSER	ER722	2023-08-25	33011	4769395	33648	144.478961	1.019296	141.743788
24	23900	Plum	S.S. BREAKER	BREAKER	2023-08-16	8361	4740476	31192	566.974763	3.730654	151.977301
25	23613	Findlay	RECLOSER	WR684	2023-09-15	27783	4695314	50708	168.999532	1.825144	92.595132
26	23696	Brunot Is.	SECTIONALIZER	WA972	2023-07-30	22328	4688719	46981	209.992789	2.104129	99.800323
27	4601	Rankin	S.S. BREAKER	BREAKER	2023-07-01	7931	4616714	24479	582.109948	3.086496	188.598962

<sup>2</sup> The “Device” column indicates the device that most frequently operated and locked out in response to a fault.