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May 26, 2022

**VIA OVERNIGHT 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

Re: **Duquesne Light Company**  
**Amended Quarterly Electric Reliability Report – 1st Quarter 2021**  
**Docket No. M-2016-2522508**

Dear Secretary Chiavetta:

Enclosed please find an amended Quarterly Electric Reliability Report for the first quarter of 2021 that corrects errors in the original filing. Duquesne Light Company recently identified an error in a query used in the creation of this report that incorrectly identified the device that operated most frequently (i.e. opened or closed by Operator action or automatically due to a fault) for each circuit.

This error impacted Duquesne Light's Q4 2020 report, and all four quarterly reports filed in 2021. Amended reports are being filed for all five quarters with corrections to the worst performing circuits list and Attachment A. The amended reports are being filed in redlined and clean versions.

This amended report should replace the previously filed report in its entirety and Duquesne Light requests that the original filing be removed from the docket.

The report is submitted in two versions, proprietary and non-proprietary. The proprietary version 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.

The non-proprietary version has been e-filed at the above referenced docket.

If you have any questions regarding the information contained in this filing, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read 'L.A. Baxter'.

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  
First Quarter 2021  
Electric Reliability Report  
to the  
Pennsylvania Public Utility Commission***

***April 29, 2021  
Revised: May 26, 2022***

**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.*

No major events occurred during the first quarter of 2021.

**(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>2021 1Q (Rolling 12 mo)</b>	112	0.79	141	*

\* 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.

In 2020, Duquesne Light’s SAIDI and SAIFI performance were both below benchmark and standard. CAIDI performance in 2020 missed the standard by two points (1.2%). This is the first time since at least 2004 that Duquesne Light has missed the standard for one of its reliability metrics. The increase in CAIDI is primarily attributable to weather impacts. During 2020, the Company experienced three weather events that resulted in significant customer outages of greater than 40,000 customers, which is just below the threshold for an excludable event (10% of customers or 60,000 customers). Duquesne Light targets achieving reliability performance in 2021 that is within all three reliability standards.

**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: (excludes the 4/8/20 Major Event that is listed below)	6,222,682 KVA
Total KVA-Minutes Interrupted: (excludes the 4/8/20 Major Event that is listed below)	877,384,847 KVA-Minutes
System Connected Load as of 3/31/21	7,869,335 KVA
April 8, 2020 Major Event	772,911 KVA (10% of System Load) 302,912,154 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).**

**First Quarter 2021 Rolling 12 Month Circuit Data**

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>1  23714 Pine Creek  Sectionalizer</p>	<p>10 Total Outage(s)</p> <p>First 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 tree fall-in Inside ROW.</li> <li>• One outage was caused by equipment failure.</li> <li>• One outage was by an unknown cause.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• Five outages were 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>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Distribution Overhead Line Inspection performed in 2020 and all high priority repairs completed.</li> <li>• The Company is investigating reliability enhancements for this circuit.</li> <li>• Vegetation Management completed Q4 2018. Proposed for 2023.</li> </ul>
<p>2  23921 Logan’s Ferry  Fuse Link</p>	<p>2 Total Outage(s)</p> <p>First 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> </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>• Distribution Overhead Line Inspection performed in 2017 and all high priority repairs completed.</li> <li>• The Company plans to update the coordination of protective devices.</li> <li>• The Company plans to perform reliability enhancements, such as additional lateral fusing.</li> <li>• Vegetation Management completed Q4 2020. Proposed for 2024.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>3  23646 Wolfe Run  Sectionalizer</p>	<p>2 Total Outage(s)</p> <p>First 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 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>• Distribution Overhead Line Inspection performed in 2018 and all high priority repairs completed.</li> <li>• Vegetation Management completed Q2 2018. Proposed for 2024.</li> </ul>
<p>4  23706 North  Sectionalizer</p>	<p>4 Total Outage(s)</p> <p>First 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>• 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>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Distribution Overhead Line Inspection scheduled for 2021.</li> <li>• The Company plans to update the coordination of protective devices including fuses.</li> <li>• The Company plans to perform reliability enhancements, such as installing protective device upgrades.</li> <li>• Vegetation Management completed Q3 2018. Proposed for 2022.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>5  22869 Midland - Cooks Ferry  Fuse Link</p>	<p>2 Total Outage(s)</p> <p>First 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 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>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Distribution Overhead Line Inspection performed in 2019 and all high priority repairs completed.</li> <li>• The Company completed updating the coordination of protective devices, such as fuses, in the first half of 2021.</li> <li>• The Company plans to perform reliability enhancements, such as pole replacement and conductor upgrades.</li> <li>• Vegetation Management completed Q3 2017. Proposed for 2022.</li> </ul>
<p>6  23681 Woodville  Fuse Link</p>	<p>2 Total Outage(s)</p> <p>First 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> </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>• Distribution Overhead Line Inspection performed in 2019 and all high priority repairs completed.</li> <li>• Vegetation Management completed Q2 2016. Proposed for 2021.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>7  23660 Crescent  Fuse Link</p>	<p>2 Total Outage(s)</p> <p>First Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was by an unknown cause.</li> <li>• One outage was due to a storm.</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>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Distribution Overhead Line Inspection performed in 2020 and all high priority repairs completed.</li> <li>• The Company plans to update the coordination of protective devices including fuses.</li> <li>• The Company plans to perform reliability enhancements, such as installing a new circuit tie.</li> <li>• Vegetation Management completed Q4 2020. Proposed for 2026.</li> </ul>
<p>8  23718 Pine Creek  Breaker</p>	<p>2 Total Outage(s)</p> <p>First 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> </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>• Distribution Overhead Line Inspection performed in 2019 and all high priority repairs completed.</li> <li>• Vegetation Management completed Q3 2018. Proposed for 2022.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>9 23882 Rankin Breaker</p>	<p>3 Total Outage(s)</p> <p>First 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> <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>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Distribution Overhead Line Inspection performed in 2020 and all high priority repairs completed.</li> <li>• Vegetation Management completed Q1 2017. Proposed for 2021.</li> </ul>
<p>10 23841 Arsenal Sectionalizer</p>	<p>3 Total Outage(s)</p> <p>First 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> <li>• One outage was due to 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>• Distribution Overhead Line Inspection will be performed in 2017.</li> <li>• The company completed updating the coordination of protective devices, such as reclosers, in the first half of 2021.</li> <li>• Vegetation Management completed Q4 2018. Proposed for 2022.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>11  23870 Mt. Nebo  Fuse Link</p>	<p>3 Total Outage(s)</p> <p>First 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 Outside ROW.</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>• Distribution Overhead Line Inspection performed in 2017 and all high priority repairs completed.</li> <li>• The Company plans to update the coordination of protective devices including fuses.</li> <li>• The Company plans to perform reliability enhancements, such as installing new switching devices.</li> <li>• Vegetation Management completed Q4 2017. Proposed for 2021.</li> </ul>
<p>12  23880 Rankin  Sectionalizer</p>	<p>2 Total Outage(s)</p> <p>First 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 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>• Distribution Overhead Line Inspection performed in 2020 and all high priority repairs completed.</li> <li>• Vegetation Management completed Q4 2017. Proposed for 2022.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>13 23902 Plum Fuse Link</p>	<p>5 Total Outage(s)</p> <p>First 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 equipment failure.</li> <li>• One outage was caused by tree fall-in Outside ROW.</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>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Distribution Overhead Line Inspection performed in 2020 and all high priority repairs completed.</li> <li>• Vegetation Management completed Q4 2017. Proposed for 2021.</li> </ul>
<p>14 23732 Universal Breaker</p>	<p>2 Total Outage(s)</p> <p>First 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 wires wrapping together causing a short circuit.</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>• Distribution Overhead Line Inspection performed in 2017 and all high priority repairs completed.</li> <li>• The Company plans to update the coordination of protective devices including fuses.</li> <li>• Vegetation Management completed Q3 2016. Proposed for 2021.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>15  23670 Montour  Breaker</p>	<p>5 Total Outage(s)</p> <p>First 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 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>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Distribution Overhead Line Inspection scheduled for 2021.</li> <li>• The Company completed updating the coordination of protective devices, such as fuses, in the first half of 2021.</li> <li>• The Company plans to perform reliability enhancements, such as installing a new circuit tie.</li> <li>• Vegetation Management completed Q1 2018. Proposed for 2022.</li> </ul>
<p>16  23694 Brunot Island  Fuse Link</p>	<p>3 Total Outage(s)</p> <p>First 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> </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>• Distribution Overhead Line Inspection will be performed in 2021.</li> <li>• Vegetation Management completed Q4 2018. Proposed for 2022.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>17  23614 Findlay  Recloser</p>	<p>2 Total Outage(s)</p> <p>First 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 lightning.</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>• Distribution Overhead Line Inspection will be performed in 2021.</li> <li>• The Company plans to perform reliability enhancements, such as installing new switching devices.</li> <li>• Vegetation Management proposed for 2021.</li> </ul>
<p>18  23661 Crescent  Breaker</p>	<p>3 Total Outage(s)</p> <p>First 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> <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>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Distribution Overhead Line Inspection performed in 2017 and all high priority repairs completed.</li> <li>• The Company completed updating the coordination of protective devices, such as fuses, in the first half of 2021.</li> <li>• Vegetation Management completed Q4 2020. Proposed for 2026.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>19 23862 Wilson Fuse Link</p>	<p>1 Total Outage(s)</p> <p>First 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>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Distribution Overhead Line Inspection performed in 2018 and all high priority repairs completed.</li> <li>• Vegetation Management completed Q4 2019. Proposed for 2023.</li> </ul>
<p>20 23867 Wildwood Fuse Link</p>	<p>2 Total Outage(s)</p> <p>First 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 due to 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>• Distribution Overhead Line Inspection performed in 2020 and all high priority repairs completed.</li> <li>• Vegetation Management completed Q4 2020. Proposed for 2025.</li> </ul>
<p>21 23703 North Fuse Link</p>	<p>2 Total Outage(s)</p> <p>First 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 due to 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>• Distribution Overhead Line Inspection was performed in 2017.</li> <li>• Vegetation Management completed Q4 2016. Proposed for 2021.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>22 23881 Rankin Breaker</p>	<p>3 Total Outage(s)</p> <p>First 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> <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>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Distribution Overhead Line Inspection will be performed in 2021.</li> <li>• Vegetation Management completed Q2 2017. Proposed for 2022.</li> </ul>
<p>23 23783 Valley Breaker</p>	<p>4 Total Outage(s)</p> <p>First 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 by an unknown cause.</li> <li>• One outage was caused by tree fall-in Inside ROW.</li> <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>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Distribution Overhead Line Inspection scheduled for 2021.</li> <li>• The Company plans to update the coordination of protective devices including fuses.</li> <li>• The Company plans to perform reliability enhancements, such as installing new switching devices.</li> <li>• Vegetation Management completed Q1 2017. Proposed for 2022.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>24  23711 Pine Creek  Fuse Link</p>	<p>4 Total Outage(s)</p> <p>First 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 tree fall-in Inside ROW.</li> <li>• One outage was caused by contact with customer equipment by a customer, employee, or contractor.</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>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Distribution Overhead Line Inspection performed in 2018 and all high priority repairs completed.</li> <li>• Vegetation Management completed Q4 2015. Proposed for 2021.</li> </ul>
<p>25  23770 Traverse Run  Fuse Link</p>	<p>3 Total Outage(s)</p> <p>First 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 Outside ROW.</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>• Distribution Overhead Line Inspection performed in 2018 and all high priority repairs completed.</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>26  23716 Pine Creek  Fuse Link</p>	<p>2 Total Outage(s)            First 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 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>• Distribution Overhead Line Inspection performed in 2019 and all high priority repairs completed.</li> <li>• The Company plans to perform reliability enhancements, such as installing a new circuit tie.</li> <li>• Vegetation Management completed Q1 2019. Proposed for 2023.</li> </ul>
<p>27  23640 Midland  Fuse Link</p>	<p>3 Total Outage(s)            First 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> <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>• Distribution Overhead Line Inspection performed in 2017 and all high priority repairs completed.</li> <li>• The Company plans to update the coordination of protective devices including fuses.</li> <li>• The Company plans to perform reliability enhancements, such as installing new switching devices.</li> <li>• Vegetation Management completed Q4 2018. Proposed for 2023.</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.

**April 1, 2020 through March 31, 2021 minus  
 One PUC Major Event Exclusion that occurred on April 8, 2020**

CAUSE	NO. OF OUTAGES	OUTAGE PERCENTAGE	KVA TOTAL	KVA PERCENTAGE	KVA-MINUTE TOTAL	KVA-MINUTE PERCENTAGE
Storms	369	12%	764,453	12%	163,641,485	19%
Trees (Inside ROW)	100	3%	186,917	3%	32,633,380	4%
Trees (Outside ROW)	982	31%	1,897,382	31%	327,013,845	37%
Equipment Failures	781	24%	1,893,758	30%	215,643,155	24%
Overloads	145	4%	51,488	1%	5,651,306	<1%
Vehicles	163	5%	458,635	7%	50,251,667	6%
Contact/Dig In	36	1%	94,189	2%	7,193,040	1%
Animal Contact	103	3%	169,184	3%	8,588,070	1%
Unknown	371	12%	496,569	8%	34,395,807	4%
Other	151	5%	210,107	3%	32,373,092	4%
<b>TOTALS</b>	<b>3,201</b>	<b>100%</b>	<b>6,222,682</b>	<b>100%</b>	<b>877,384,847</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>2021 Transmission and Distribution Goals and Objectives</b>							
<b>Program Project</b>	<b>Unit of Measurement</b>	<b>Target for 2021 IQ</b>	<b>Actual for 2021 IQ</b>	<b>IQ Percent Complete</b>	<b>Targets for Year 2021</b>	<b>Actual YTD for 2021</b>	<b>Year End % Complete</b>
<b>Communications Goals</b>							
Communication Battery Maintenance	Battery Tasks	27	26	96%	108	26	24%
<b>Overhead Distribution Goals</b>							
Recloser Inspections	Circuits	33	42	127%	121	42	35%
Pole Inspections	Poles	0	395	N/A	17,677	395	2%
OH Line Inspections	Circuits	33	42	127%	121	42	35%
OH Transformer Inspections	Circuits	33	42	127%	121	42	35%
Padmount & Below Grade Insp	Circuits	76	62	82%	76	62	82%
<b>Overhead Transmission Goals</b>							
Helicopter Inspections	Circuits	0	0	N/A	11	0	0%
Ground Inspections	Structures	247	286	116%	354	286	81%
<b>Substations Goals</b>							
Circuit Breaker Maintenance	Breaker Tasks	105	153	146%	375	153	41%
Station Transformer Maintenance	Transformer Tasks	4	1	25%	44	1	2%
Station Battery Maintenance	Battery Tasks	220	179	81%	880	179	20%
Station Relay Maintenance	Relay Tasks	300	214	71%	1,634	214	13%
Station Inspections	Site Visits	465	465	100%	1,860	465	25%
<b>Underground Distribution Goals</b>							
Manhole Inspections	Manholes	200	263	132%	700	263	38%
Major Network Insp (Prot Relay)	Network Protectors	26	22	85%	92	22	24%
Minor Network Visual Inspection (Transformer/Protector/Vault)	Network Transformers	120	384	320%	576	384	67%
<b>Underground Transmission Goals</b>							
Pressurization and Cathodic Protection Plant Inspection	Work Orders	93	90	97%	372	90	24%
<b>Vegetation Management Goals</b>							
Overhead Line Clearance	Circuit Overhead Miles	280	348	124%	1,300	348	27%

**(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 March 31, 2021  
 (In Whole Dollars)  
 Favorable/(Unfavorable)

	<b>Total Actual</b>	<b>Total Budget</b>	<b>Variance</b>
<b>Customer Service</b>	\$14,347,685	\$16,463,611	\$2,115,926
<b>Human Resources</b>	3,947,036	4,712,920	765,884
<b>Operations/Operation Services</b>	17,736,202	18,051,682	315,480
<b>Technology</b>	14,601,677	12,883,855	(1,717,822)
<b>General Corporate*</b>	11,198,258	10,424,869	(773,389)
<b>Total</b>	\$61,830,858	\$62,536,937	\$706,079

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

Budget Variance Recap – O&M Expenses  
 Year to Date through March 31, 2021  
 (In Whole Dollars)  
 Favorable/(Unfavorable)

	<b>Total Actual</b>	<b>Total Budget</b>	<b>Variance</b>
<b>Customer Service</b>	\$14,347,685	\$16,463,611	\$2,115,926
<b>Human Resources</b>	3,947,036	4,712,920	765,884
<b>Operations/Operation Services</b>	17,736,202	18,051,682	315,480
<b>Technology</b>	14,601,677	12,883,855	(1,717,822)
<b>General Corporate*</b>	11,198,258	10,424,869	(773,389)
<b>Total</b>	\$61,830,858	\$62,536,937	\$706,079

\*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 March 31, 2021  
 (In Whole Dollars)  
 Favorable/(Unfavorable)

	<b>Total Actual</b>	<b>Total Budget</b>	<b>Variance</b>
<b>Customer Service</b>	\$1,742,987	\$2,760,503	\$1,017,516
<b>Human Resources</b>	3,761,229	3,532,548	(228,681)
<b>Operations/Operation Services</b>	66,649,339	83,616,621	16,967,282
<b>Technology</b>	6,912,569	9,909,221	2,996,652
<b>General Corporate*</b>	9,549,970	6,658,018	(2,891,952)
<b>Total</b>	\$88,616,094	\$106,476,911	\$17,860,817

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

Budget Variance Recap - Capital  
 Year to Date through March 31, 2021  
 (In Whole Dollars)  
 Favorable/(Unfavorable)

	<b>Total Actual</b>	<b>Total Budget</b>	<b>Variance</b>
<b>Customer Service</b>	\$1,742,987	\$2,760,503	\$1,017,516
<b>Human Resources</b>	3,761,229	3,532,548	(228,681)
<b>Operations/Operation Services</b>	66,649,339	83,616,621	16,967,282
<b>Technology</b>	6,912,569	9,909,221	2,996,652
<b>General Corporate*</b>	9,549,970	6,658,018	(2,891,952)
<b>Total</b>	\$88,616,094	\$106,476,911	\$17,860,817

\*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	15
Telecom Technician	2
<b>Total Telecom</b>	<b>23</b>
Electrical Equipment Technician	35
Protection & Control Technician	35
Yard Group Leader	3
Rigger	5
Laborer	2
<b>Total Substation</b>	<b>80</b>
UG Splicer	36
UG Cable Inspector	10
Cable Tester	1
Network Operator	13
Equipment Material Handler	1
<b>Total Underground</b>	<b>61</b>
Apprentice T&D	31
Equipment Attendant	1
Lineworker	118
Service Crew Leader	3
Equipment Material Handler	6
<b>Total Overhead</b>	<b>159</b>
Right of Way Agent	4
Surveyor	4
<b>Total Real Estate</b>	<b>8</b>
<b>Total Street Light Changer</b>	<b>6</b>
Engineering Technician	43
GIS Technician	7
T&D Mobile Worker	6
Test Technician, Mobile	5
<b>Total Engineering</b>	<b>61</b>
Senior Operator Apprentice	36
Senior Operator	26
Troubleshooter	22
<b>Total Senior Operator/Troubleshooter</b>	<b>84</b>
<b>Total Switching Dispatcher</b>	<b>11</b>
<b>Total Employees</b>	<b>493</b>

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

**CONFIDENTIAL INFORMATION**

**1<sup>st</sup> Quarter 2021**

Contractor Dollars: REDACTED  
Contractor Hours: REDACTED

**YTD 2021**

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 –1<sup>st</sup> Quarter 2021**  
REDACTED

**Amount of Time it Takes to Obtain the Necessary Personnel – 1<sup>st</sup> Quarter 2021**  
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 – 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.*

Rank	Circuit No	Circuit Name	Equipment Type	Device	Last Lockout	Ckt KVA	Total KVA Min Interrupted	Total KVA Interrupted	SAIDI	SAIFI	CAIDI
1	23714	Pine Creek	SECTIONALIZER	WA609	2021-03-28	32875	38534797	202898	1172.16	6.17	189.92
2	23921	Logans Ferry	FUSE LINK	Pole # 109091	2021-03-01	30891	27923250	70242	864.03	2.18	397.53
3	23646	Wolfe Run	SECTIONALIZER	WA483	2020-08-27	36176	19143001	74392	529.16	2.06	257.33
4	23706	North	SECTIONALIZER	WA832	2021-03-28	32220	17184072	120072	533.34	3.73	143.11
5	22869	Midland-Cooks Ferry	FUSE LINK	Pole # 129477	2020-12-01	37666	16744627	118055	444.56	3.13	141.84
6	23681	Woodville	FUSE LINK	Pole # 110610	2021-03-26	32960	14386903	104337	436.50	3.17	137.89
7	23660	Crescent	FUSE LINK	Pole # 347506	2021-03-26	31831	13950449	97134	438.27	3.05	143.62
8	23718	Pine Creek	S.S. BREAKER	BREAKER	2021-02-05	22338	13196972	27155	590.79	1.22	485.99
9	23882	Rankin	S.S. BREAKER	BREAKER	2020-12-11	17924	12494403	90693	497.29	3.60	137.77
10	23841	Arsenal	SECTIONALIZER	WR362	2020-12-25	35930	12406202	114440	353.93	3.28	108.41
11	23870	Mt. Nebo	FUSE LINK	Pole # 71871	2020-11-16	33392	11959442	63990	358.15	1.92	186.90
12	23880	Rankin	SECTIONALIZER	EA95	2020-12-24	28995	11618428	31475	358.90	0.97	369.13
13	23902	Plum	FUSE LINK	Pole # 259201	2021-01-04	29575	10991719	86558	332.57	2.62	126.99
14	23732	Universal	S.S. BREAKER	BREAKER	2020-11-15	22910	10540738	125890	467.79	5.58	83.73
15	23670	Montour	S.S. BREAKER	BREAKER	2020-12-26	34595	10446030	61922	301.95	1.79	168.70
16	23694	Brunot Is.	FUSE LINK	Pole # 5634	2020-06-21	28410	10439052	71224	367.44	2.51	146.57
17	23614	Findlay	RECLOSER	WR634	2020-12-22	27879	10435126	47406	374.30	1.70	220.12
18	23661	Crescent	S.S. BREAKER	BREAKER	2020-08-27	29773	9567568	78592	321.35	2.64	121.74
19	23862	Wilson	FUSE LINK	Pole # 180339	2021-03-26	37666	9386381	44408	251.43	1.19	211.37
20	23867	Wildwood	FUSE LINK	Pole # 310	2020-12-16	32745	9115198	59381	278.37	1.81	153.50
21	23703	North	FUSE LINK	Pole # 315568	2021-03-10	22232	8905362	25644	400.57	1.15	347.27
22	23881	Rankin	S.S. BREAKER	BREAKER	2021-03-25	19983	8871520	84291	448.64	4.27	105.25
23	23783	Valley	S.S. BREAKER	BREAKER	2021-02-28	35257	8653041	96252	245.43	2.73	89.90
24	23711	Pine Creek	FUSE LINK	Pole # 38219	2020-10-13	22021	8572286	65352	389.28	2.97	131.17
25	23770	Traverse Run	FUSE LINK	Pole # 162064	2020-08-28	24524	8433096	102628	343.87	4.18	82.17
26	23716	Pine Creek	FUSE LINK	Pole # 357712	2021-01-26	35398	8246829	67240	232.97	1.90	122.65
27	23640	Midland	FUSE LINK	Pole # 125426	2020-10-20	31306	8213112	32874	262.35	1.05	249.84



*Duquesne Light Company*  
*First Quarter 2021*  
*Electric Reliability Report*  
*to the*  
*Pennsylvania Public Utility Commission*

*April 29, 2021*  
*Revised: May 26, 2022*

**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.*

No major events occurred during the first quarter of 2021.

(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>2021 1Q (Rolling 12 mo)</b>	112	0.79	141	*

\* 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.

In 2020, Duquesne Light’s SAIDI and SAIFI performance were both below benchmark and standard. CAIDI performance in 2020 missed the standard by two points (1.2%). This is the first time since at least 2004 that Duquesne Light has missed the standard for one of its reliability metrics. The increase in CAIDI is primarily attributable to weather impacts. During 2020, the Company experienced three weather events that resulted in significant customer outages of greater than 40,000 customers, which is just below the threshold for an excludable event (10% of customers or 60,000 customers). Duquesne Light targets achieving reliability performance in 2021 that is within all three reliability standards.

**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: (excludes the 4/8/20 Major Event that is listed below)	6,222,682 KVA
Total KVA-Minutes Interrupted: (excludes the 4/8/20 Major Event that is listed below)	877,384,847 KVA-Minutes
System Connected Load as of 3/31/21	7,869,335 KVA
April 8, 2020 Major Event	772,911 KVA (10% of System Load) 302,912,154 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).**

**First Quarter 2021 Rolling 12 Month Circuit Data**

Rank, Circuit Name, Device	Outages	Remedial Actions Planned or Taken
<p>1 23714 Pine Creek Sectionalizer</p>	<p><del>12</del>10 Total Outage(s)</p> <p>First 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 tree fall-in Inside ROW.</li> <li>• <del>One outage was caused by wire wrapping during high winds.</del></li> <li>• One outage was caused by equipment failure.</li> <li>• One outage was <del>caused</del> by <u>an</u> unknown cause.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• Five outages were caused by tree fall-in Outside ROW.</li> <li>• One outage was caused by equipment failure.</li> <li>• <del>One outage was caused by wire wrapping during high winds.</del></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>• Distribution Overhead Line Inspection performed in 2020 and all high priority repairs completed.</li> <li>• The Company is investigating reliability enhancements for this circuit.</li> <li>• Vegetation Management completed Q4 2018. Proposed for 2023.</li> </ul>

Rank, Circuit Name, Device	Outages	Remedial Actions Planned or Taken
<p>2            23921            Logan's Ferry  <u>Recluser Fuse Link</u></p>	<p><del>4</del>2 Total Outage(s)</p> <p>First Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• <del>No outage(s).</del></li> <li>• <u>One outage was caused by tree fall-in Outside ROW.</u></li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• <del>Three outages were caused by a storm.</del></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>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Distribution Overhead Line Inspection performed in 2017 and all high priority repairs completed.</li> <li>• The Company plans to update the coordination of protective devices.</li> <li>• The Company plans to perform reliability enhancements, such as additional lateral fusing.</li> <li>• Vegetation Management completed Q4 2020. Proposed for 2024.</li> </ul>
<p>3            23646            Wolfe Run            Sectionalizer</p>	<p>2 Total Outage(s)</p> <p>First 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 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>• Distribution Overhead Line Inspection performed in 2018 and all high priority repairs completed.</li> <li>• Vegetation Management completed Q2 2018. Proposed for 2024.</li> </ul>

Rank, Circuit Name, Device	Outages	Remedial Actions Planned or Taken
<p>4</p> <p>23706 North</p> <p>Sectionalizer</p>	<p><del>54</del> Total Outage(s)</p> <p>First 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>• Two outages were caused by tree fall-in Outside ROW.</li> <li>• <del>Two outages were</del><u>One outage was</u> 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>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Distribution Overhead Line Inspection scheduled for 2021.</li> <li>• The Company plans to update the coordination of protective devices including fuses.</li> <li>• The Company plans to perform reliability enhancements, such as installing protective device upgrades.</li> <li>• Vegetation Management completed Q3 2018. Proposed for 2022.</li> </ul>
<p>5</p> <p>22869 Midland - Cooks Ferry</p> <p><del>Recloser</del> <u>Fuse Link</u></p>	<p><del>42</del> Total Outage(s)</p> <p>First 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>• <del>One outage was caused by unknown cause.</del></li> <li>• <del>One outage was caused by contact with company equipment by vehicle.</del></li> <li>• <del>Two outages were caused by equipment failure.</del></li> <li>• <u>One outage was caused by tree fall-in Outside ROW.</u></li> <li>• <u>One outage was caused by tree fall-in Inside ROW.</u></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>• Distribution Overhead Line Inspection performed in 2019 and all high priority repairs completed.</li> <li>• The Company completed updating the coordination of protective devices, such as fuses, in the first half of 2021.</li> <li>• The Company plans to perform reliability enhancements, such as pole replacement and conductor upgrades.</li> <li>• Vegetation Management completed Q3 2017. Proposed for 2022.</li> </ul>

Rank, Circuit Name, Device	Outages	Remedial Actions Planned or Taken
<p>6</p> <p>23681 Woodville</p> <p><del>Reclouser</del></p> <p><u>Fuse Link</u></p>	<p><del>42</del> Total Outage(s)</p> <p>First Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• <del>Three outages were</del><u>One outage was</u> caused by tree fall-in Outside ROW.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• <del>One outage was caused by equipment failure.</del></li> <li>• <u>One outage was caused by tree fall-in Outside ROW.</u></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>• Distribution Overhead Line Inspection performed in 2019 and all high priority repairs completed.</li> <li>• Vegetation Management completed Q2 2016. Proposed for 2021.</li> </ul>
<p>7</p> <p>23660 Crescent</p> <p><del>Sectionalizer</del></p> <p><u>Fuse Link</u></p>	<p><del>42</del> Total Outage(s)</p> <p>First Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• <u>One outage was by an unknown cause.</u></li> <li>• <u>One outage was due to a storm.</u></li> <li>• <del>No outage(s).</del></li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• <del>Four outages were caused by equipment failure.</del></li> <li>• <u>No outage(s).</u></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>• Distribution Overhead Line Inspection performed in 2020 and all high priority repairs completed.</li> <li>• The Company plans to update the coordination of protective devices including fuses.</li> <li>• The Company plans to perform reliability enhancements, such as installing a new circuit tie.</li> <li>• Vegetation Management completed Q4 2020. Proposed for 2026.</li> </ul>

Rank, Circuit Name, Device	Outages	Remedial Actions Planned or Taken
<p>8  23718 Pine Creek  <u>Reeloser Breaker</u></p>	<p>2 Total Outage(s)</p> <p>First Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>One outage was caused by tree fall-in Outside <del>Utility</del> 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> </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>Distribution Overhead Line Inspection performed in 2019 and all high priority repairs completed.</li> <li>Vegetation Management completed Q3 2018. Proposed for 2022.</li> </ul>
<p>9  23882 Rankin  <u>Reeloser Breaker</u></p>	<p>3 Total Outage(s)</p> <p>First 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><del>One outage was</del><u>Two outages were</u> caused by tree fall-in Outside ROW.</li> <li><del>One outage was caused by outside contractor work.</del></li> <li><del>One outage was caused by wires wrapping and causing short circuit.</del></li> <li><u>One outage was caused by contact with company equipment by vehicle.</u></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>Distribution Overhead Line Inspection performed in 2020 and all high priority repairs completed.</li> <li>Vegetation Management completed Q1 2017. Proposed for 2021.</li> </ul>

Rank, Circuit Name, Device	Outages	Remedial Actions Planned or Taken
<p>10</p> <p>23841 Arsenal</p> <p><del>Recloser</del></p> <p><u>Sectionalizer</u></p>	<p>3 Total Outage(s)</p> <p>First Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• <del>Two outages were caused by tree fall-in Inside ROW.</del></li> <li>• <u>No outage(s).</u></li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• <del>One outage was Two outages were</del> caused by tree fall-in Outside ROW.</li> <li>• <u>One outage was due to a storm.</u></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>• Distribution Overhead Line Inspection will be performed in 2017.</li> <li>• The company completed updating the coordination of protective devices, such as reclosers, in the first half of 2021.</li> <li>• Vegetation Management completed Q4 2018. Proposed for 2022.</li> </ul>
<p>11</p> <p>23870 Mt. Nebo</p> <p><del>Recloser</del></p> <p><u>Fuse Link</u></p>	<p>3 Total Outage(s)</p> <p>First 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>• <del>One outage was Three outages were</del> caused by tree fall-in Outside ROW.</li> <li>• <del>Two outages were caused by equipment failure.</del></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>• Distribution Overhead Line Inspection performed in 2017 and all high priority repairs completed.</li> <li>• The Company plans to update the coordination of protective devices including fuses.</li> <li>• The Company plans to perform reliability enhancements, such as installing new switching devices.</li> <li>• Vegetation Management completed Q4 2017. Proposed for 2021.</li> </ul>

Rank, Circuit Name, Device	Outages	Remedial Actions Planned or Taken
<p>12 23880 Rankin Sectionalizer</p>	<p>2 Total Outage(s)</p> <p>First 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 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>• Distribution Overhead Line Inspection performed in 2020 and all high priority repairs completed.</li> <li>• Vegetation Management completed Q4 2017. Proposed for 2022.</li> </ul>
<p>13 23902 Plum Fuse Link</p>	<p><del>35</del> Total Outage(s)</p> <p>First Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• <del>One outage was caused by tree fall-in Outside ROW.</del></li> <li>• <u>One outage was by an unknown cause.</u></li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• <del>One outage was caused by an unknown cause.</del></li> <li>• <u>One outage caused by outside tree contractor work.</u></li> <li>• <u>Two outages were caused by equipment failure.</u></li> <li>• <u>One outage was caused by tree fall-in Outside ROW.</u></li> <li>• <u>One outage was caused by tree fall-in Inside ROW.</u></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>• Distribution Overhead Line Inspection performed in 2020 and all high priority repairs completed.</li> <li>• Vegetation Management completed Q4 2017. Proposed for 2021.</li> </ul>

Rank, Circuit Name, Device	Outages	Remedial Actions Planned or Taken
<p>14  23732 Universal  <u>Sectionalizer Breaker</u></p>	<p><del>62</del> Total Outage(s)</p> <p>First 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>• <del>Four outages were caused by wires blown together in high winds.</del></li> <li>• <del>One outage was caused by equipment failure.</del></li> <li>• <u>One outage was caused by tree fall-in Outside ROW.</u></li> <li>• <u>One outage was caused by wires wrapping together causing a short circuit.</u></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>• Distribution Overhead Line Inspection performed in 2017 and all high priority repairs completed.</li> <li>• The Company plans to update the coordination of protective devices including fuses.</li> <li>• Vegetation Management completed Q3 2016. Proposed for 2021.</li> </ul>
<p>15  23670 Montour  <u>Recloser Breaker</u></p>	<p><del>45</del> Total Outage(s)</p> <p>First 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>• <del>Three</del><u>Four</u> outages were 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>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Distribution Overhead Line Inspection scheduled for 2021.</li> <li>• The Company completed updating the coordination of protective devices, such as fuses, in the first half of 2021.</li> <li>• The Company plans to perform reliability enhancements, such as installing a new circuit tie.</li> <li>• Vegetation Management completed Q1 2018. Proposed for 2022.</li> </ul>

Rank, Circuit Name, Device	Outages	Remedial Actions Planned or Taken
<p>16 23694 Brunot Island  <u>Sectionalizer</u>  <u>Fuse Link</u></p>	<p><del>53</del> Total Outage(s)  First Quarter Outage(s):  <ul style="list-style-type: none"> <li>• <del>One outage was caused by balloon.</del></li> <li>• <u>No outage(s).</u></li> </ul>           Previous Outage(s):  <ul style="list-style-type: none"> <li>• <del>Three outages were caused by tree fall in Outside ROW.</del></li> <li>• <u>One outage was <del>Three</del> outages were</u> caused by equipment failure.</li> </ul> </p>	<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>• Distribution Overhead Line Inspection will be performed in 2021.</li> <li>• Vegetation Management completed Q4 2018. Proposed for 2022.</li> </ul>
<p>17 23614 Findlay  Recloser</p>	<p><del>32</del> Total Outage(s)  First 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>• <del>One outage was caused by tree fall in Outside ROW.</del></li> <li>• One outage was caused by tree fall-in Inside ROW.</li> <li>• One outage was caused by lightning.</li> </ul> </p>	<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>• Distribution Overhead Line Inspection will be performed in 2021.</li> <li>• The Company plans to perform reliability enhancements, such as installing new switching devices.</li> <li>• Vegetation Management proposed for 2021.</li> </ul>

Rank, Circuit Name, Device	Outages	Remedial Actions Planned or Taken
<p>18</p> <p>23661 Crescent</p> <p><del>Sectionalizer</del></p> <p><u>Breaker</u></p>	<p><del>13</del> Total Outage(s)</p> <p>First 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>• <u>Two outages were caused by tree fall-in Outside ROW.</u></li> <li>• <del>One outage was caused by contact with company equipment by vehicle.</del></li> <li>• <u>One outage was caused by tree fall-in Inside ROW.</u></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>• Distribution Overhead Line Inspection performed in 2017 and all high priority repairs completed.</li> <li>• The Company completed updating the coordination of protective devices, such as fuses, in the first half of 2021.</li> <li>• Vegetation Management completed Q4 2020. Proposed for 2026.</li> </ul>
<p>19</p> <p>23862 Wilson</p> <p><del>Sectionalizer</del></p> <p><u>Fuse Link</u></p>	<p><del>21</del> Total Outage(s)</p> <p>First Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• <u>One outage was caused by tree fall-in Inside ROW.</u></li> <li>• <del>No outage(s).</del></li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• <del>One outage was caused by wires wrapped together causing short circuit.</del></li> <li>• <del>One outage was caused by a storm.</del></li> <li>• <u>No outage(s).</u></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>• Distribution Overhead Line Inspection performed in 2018 and all high priority repairs completed.</li> <li>• Vegetation Management completed Q4 2019. Proposed for 2023.</li> </ul>

Rank, Circuit Name, Device	Outages	Remedial Actions Planned or Taken
<p>20</p> <p>23867 Wildwood</p> <p><del>Recluser</del> <u>Fuse Link</u></p>	<p>2 Total Outage(s)</p> <p>First Quarter Outage(s):</p> <ul style="list-style-type: none"> <li><del>• Two outages were caused by unknown causes.</del></li> <li>• <u>No outage(s).</u></li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• <u>One outage was by an unknown cause.</u></li> <li>• <u>One outage was due to a storm.</u></li> <li><del>• No outage(s).</del></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>• Distribution Overhead Line Inspection performed in 2020 and all high priority repairs completed.</li> <li>• Vegetation Management completed Q4 2020. Proposed for 2025.</li> </ul>
<p>21</p> <p>23703 North</p> <p><del>Sectionalizer</del> <u>Fuse Link</u></p>	<p><del>±2</del> Total Outage(s)</p> <p>First Quarter Outage(s):</p> <ul style="list-style-type: none"> <li><del>• No outage(s).</del></li> <li>• <u>One outage was by an unknown cause.</u></li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• <u>One outage was caused by tree fall in Outside ROW.</u></li> <li>• <u>One outage was due to a storm.</u></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>• Distribution Overhead Line Inspection was performed in 2017.</li> <li>• Vegetation Management completed Q4 2016. Proposed for 2021.</li> </ul>
<p>22</p> <p>23881 Rankin</p> <p><del>Sectionalizer</del><u>Breaker</u></p>	<p><del>23</del> Total Outage(s)</p> <p>First 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>• <u>One outage was caused by contact with company equipment by vehicle.</u></li> <li>• <u>One outage was caused by tree fall-in Outside ROW.</u></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>• Distribution Overhead Line Inspection will be performed in 2021.</li> <li>• Vegetation Management completed Q2 2017. Proposed for 2022.</li> </ul>

Rank, Circuit Name, Device	Outages	Remedial Actions Planned or Taken
<p>23</p> <p>23783 Valley</p> <p><del>Sectionalizer</del>Breaker</p>	<p><del>24</del> Total Outage(s)</p> <p>First Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• <del>No outages.</del></li> <li>• <u>One outage was caused by equipment failure.</u></li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was <del>caused</del> by <u>an</u> unknown cause.</li> <li>• <u>One outage was caused by tree fall-in Inside ROW.</u></li> <li>• <u>One outage was caused by high current.</u></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>• Distribution Overhead Line Inspection scheduled for 2021.</li> <li>• The Company plans to update the coordination of protective devices including fuses.</li> <li>• The Company plans to perform reliability enhancements, such as installing new switching devices.</li> <li>• Vegetation Management completed Q1 2017. Proposed for 2022.</li> </ul>
<p>24</p> <p>23711 Pine Creek</p> <p><del>Reeloser</del>Fuse Link</p>	<p><del>34</del> Total Outage(s)</p> <p>First 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>• <del>Three outages were</del><u>One outage was</u> caused by tree fall-in Outside ROW.</li> <li>• <u>One outage was caused by tree fall-in Inside ROW.</u></li> <li>• <u>One outage was caused by contact with customer equipment by a customer, employee, or contractor.</u></li> <li>• <u>One outage was by an unknown cause.</u></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>• Distribution Overhead Line Inspection performed in 2018 and all high priority repairs completed.</li> <li>• Vegetation Management completed Q4 2015. Proposed for 2021.</li> </ul>

Rank, Circuit Name, Device	Outages	Remedial Actions Planned or Taken
<p>25</p> <p>23770 Traverse Run</p> <p><del>Reeloser</del> <u>Fuse Link</u></p>	<p><del>4</del>3 Total Outage(s)</p> <p>First 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>• <del>One outage was</del><u>Three outages were</u> caused by tree fall-in Outside ROW.</li> <li>• <del>One outage was caused by contact with company equipment by vehicle.</del></li> <li>• <del>Two outages were caused by high current overload.</del></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>• Distribution Overhead Line Inspection performed in 2018 and all high priority repairs completed.</li> <li>• Vegetation Management completed Q2 2020. Proposed for 2025.</li> </ul>
<p>26</p> <p>23716 Pine Creek</p> <p><del>Reeloser</del> <u>Fuse Link</u></p>	<p>2 Total Outage(s)</p> <p>First Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• <del>No outages.</del></li> <li>• <u>One outage was caused by equipment failure.</u></li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• <del>Two outages were caused by unknown cause.</del></li> <li>• <u>One outage was caused by equipment failure.</u></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>• Distribution Overhead Line Inspection performed in 2019 and all high priority repairs completed.</li> <li>• The Company plans to perform reliability enhancements, such as installing a new circuit tie.</li> <li>• Vegetation Management completed Q1 2019. Proposed for 2023.</li> </ul>

Rank, Circuit Name, Device	Outages	Remedial Actions Planned or Taken
<p>27 23640 Midland <del>Recluser</del>Fuse Link</p>	<p>3 Total Outage(s)            First Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• <del>One outage was caused by tree fall in Inside ROW.</del></li> <li>• <del>One outage was caused by tree fall in Outside ROW.</del></li> <li>• <u>No outage(s).</u></li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• <u>Two outages were caused by tree fall-in Outside ROW.</u></li> <li>• <del>One outage was caused by a storm.</del></li> <li>• <u>One outage was caused by equipment failure.</u></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>• Distribution Overhead Line Inspection performed in 2017 and all high priority repairs completed.</li> <li>• The Company plans to update the coordination of protective devices including fuses.</li> <li>• The Company plans to perform reliability enhancements, such as installing new switching devices.</li> <li>• Vegetation Management completed Q4 2018. Proposed for 2023.</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.

**April 1, 2020 through March 31, 2021 minus  
 One PUC Major Event Exclusion that occurred on April 8, 2020**

CAUSE	NO. OF OUTAGES	OUTAGE PERCENTAGE	KVA TOTAL	KVA PERCENTAGE	KVA-MINUTE TOTAL	KVA-MINUTE PERCENTAGE
Storms	369	12%	764,453	12%	163,641,485	19%
Trees (Inside ROW)	100	3%	186,917	3%	32,633,380	4%
Trees (Outside ROW)	982	31%	1,897,382	31%	327,013,845	37%
Equipment Failures	781	24%	1,893,758	30%	215,643,155	24%
Overloads	145	4%	51,488	1%	5,651,306	<1%
Vehicles	163	5%	458,635	7%	50,251,667	6%
Contact/Dig In	36	1%	94,189	2%	7,193,040	1%
Animal Contact	103	3%	169,184	3%	8,588,070	1%
Unknown	371	12%	496,569	8%	34,395,807	4%
Other	151	5%	210,107	3%	32,373,092	4%
<b>TOTALS</b>	<b>3,201</b>	<b>100%</b>	<b>6,222,682</b>	<b>100%</b>	<b>877,384,847</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>2021 Transmission and Distribution Goals and Objectives</b>							
<b>Program Project</b>	<b>Unit of Measurement</b>	<b>Target for 2021 IQ</b>	<b>Actual for 2021 IQ</b>	<b>IQ Percent Complete</b>	<b>Targets for Year 2021</b>	<b>Actual YTD for 2021</b>	<b>Year End % Complete</b>
<b>Communications Goals</b>							
Communication Battery Maintenance	Battery Tasks	27	26	96%	108	26	24%
<b>Overhead Distribution Goals</b>							
Recloser Inspections	Circuits	33	42	127%	121	42	35%
Pole Inspections	Poles	0	395	N/A	17,677	395	2%
OH Line Inspections	Circuits	33	42	127%	121	42	35%
OH Transformer Inspections	Circuits	33	42	127%	121	42	35%
Padmount & Below Grade Insp	Circuits	76	62	82%	76	62	82%
<b>Overhead Transmission Goals</b>							
Helicopter Inspections	Circuits	0	0	N/A	11	0	0%
Ground Inspections	Structures	247	286	116%	354	286	81%
<b>Substations Goals</b>							
Circuit Breaker Maintenance	Breaker Tasks	105	153	146%	375	153	41%
Station Transformer Maintenance	Transformer Tasks	4	1	25%	44	1	2%
Station Battery Maintenance	Battery Tasks	220	179	81%	880	179	20%
Station Relay Maintenance	Relay Tasks	300	214	71%	1,634	214	13%
Station Inspections	Site Visits	465	465	100%	1,860	465	25%
<b>Underground Distribution Goals</b>							
Manhole Inspections	Manholes	200	263	132%	700	263	38%
Major Network Insp (Prot Relay)	Network Protectors	26	22	85%	92	22	24%
Minor Network Visual Inspection (Transformer/Protector/Vault)	Network Transformers	120	384	320%	576	384	67%
<b>Underground Transmission Goals</b>							
Pressurization and Cathodic Protection Plant Inspection	Work Orders	93	90	97%	372	90	24%
<b>Vegetation Management Goals</b>							
Overhead Line Clearance	Circuit Overhead Miles	280	348	124%	1,300	348	27%

*(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 March 31, 2021  
 (In Whole Dollars)  
 Favorable/(Unfavorable)

	<b>Total Actual</b>	<b>Total Budget</b>	<b>Variance</b>
<b>Customer Service</b>	\$14,347,685	\$16,463,611	\$2,115,926
<b>Human Resources</b>	3,947,036	4,712,920	765,884
<b>Operations/Operation Services</b>	17,736,202	18,051,682	315,480
<b>Technology</b>	14,601,677	12,883,855	(1,717,822)
<b>General Corporate*</b>	11,198,258	10,424,869	(773,389)
<b>Total</b>	\$61,830,858	\$62,536,937	\$706,079

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

Budget Variance Recap – O&M Expenses  
 Year to Date through March 31, 2021  
 (In Whole Dollars)  
 Favorable/(Unfavorable)

	<b>Total Actual</b>	<b>Total Budget</b>	<b>Variance</b>
<b>Customer Service</b>	\$14,347,685	\$16,463,611	\$2,115,926
<b>Human Resources</b>	3,947,036	4,712,920	765,884
<b>Operations/Operation Services</b>	17,736,202	18,051,682	315,480
<b>Technology</b>	14,601,677	12,883,855	(1,717,822)
<b>General Corporate*</b>	11,198,258	10,424,869	(773,389)
<b>Total</b>	\$61,830,858	\$62,536,937	\$706,079

\*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 March 31, 2021  
 (In Whole Dollars)  
 Favorable/(Unfavorable)

	<b>Total Actual</b>	<b>Total Budget</b>	<b>Variance</b>
<b>Customer Service</b>	\$1,742,987	\$2,760,503	\$1,017,516
<b>Human Resources</b>	3,761,229	3,532,548	(228,681)
<b>Operations/Operation Services</b>	66,649,339	83,616,621	16,967,282
<b>Technology</b>	6,912,569	9,909,221	2,996,652
<b>General Corporate*</b>	9,549,970	6,658,018	(2,891,952)
<b>Total</b>	\$88,616,094	\$106,476,911	\$17,860,817

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

Budget Variance Recap - Capital  
 Year to Date through March 31, 2021  
 (In Whole Dollars)  
 Favorable/(Unfavorable)

	<b>Total Actual</b>	<b>Total Budget</b>	<b>Variance</b>
<b>Customer Service</b>	\$1,742,987	\$2,760,503	\$1,017,516
<b>Human Resources</b>	3,761,229	3,532,548	(228,681)
<b>Operations/Operation Services</b>	66,649,339	83,616,621	16,967,282
<b>Technology</b>	6,912,569	9,909,221	2,996,652
<b>General Corporate*</b>	9,549,970	6,658,018	(2,891,952)
<b>Total</b>	\$88,616,094	\$106,476,911	\$17,860,817

\*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	15
Telecom Technician	2
<b>Total Telecom</b>	<b>23</b>
Electrical Equipment Technician	35
Protection & Control Technician	35
Yard Group Leader	3
Rigger	5
Laborer	2
<b>Total Substation</b>	<b>80</b>
UG Splicer	36
UG Cable Inspector	10
Cable Tester	1
Network Operator	13
Equipment Material Handler	1
<b>Total Underground</b>	<b>61</b>
Apprentice T&D	31
Equipment Attendant	1
Lineworker	118
Service Crew Leader	3
Equipment Material Handler	6
<b>Total Overhead</b>	<b>159</b>
Right of Way Agent	4
Surveyor	4
<b>Total Real Estate</b>	<b>8</b>
<b>Total Street Light Changer</b>	<b>6</b>
Engineering Technician	43
GIS Technician	7
T&D Mobile Worker	6
Test Technician, Mobile	5
<b>Total Engineering</b>	<b>61</b>
Senior Operator Apprentice	36
Senior Operator	26
Troubleshooter	22
<b>Total Senior Operator/Troubleshooter</b>	<b>84</b>
<b>Total Switching Dispatcher</b>	<b>11</b>
<b>Total Employees</b>	<b>493</b>

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

**CONFIDENTIAL INFORMATION**

**1<sup>st</sup> Quarter 2021**

Contractor Dollars: **REDACTED**  
Contractor Hours: **REDACTED**

**YTD 2021**

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 –1<sup>st</sup> Quarter 2021**  
**REDACTED**

**Amount of Time it Takes to Obtain the Necessary Personnel – 1<sup>st</sup> Quarter 2021**  
**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.*

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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.

**ORIGINAL**

Rank	Circuit No	Circuit Name	Equipment Type	Device	Last Lockout	Ckt KVA	KVA Min Interrupted	KVA Interrupted	SAIDI	SAIFI	CAIDI
1	23714	Pine Creek	Sectionalizer	WA609	3/28/2021	32875	38534797	202898	1172	6.2	189.9
2	23921	Logans Ferry	Recloser	ER230	11/15/2020	30891	27923250	70242	864	2.2	397.5
3	23646	Wolfe Run	Sectionalizer	WA483	8/28/2020	36176	19143001	74392	529.2	2.1	257.3
4	23706	North	Sectionalizer	WA832	3/29/2021	32220	17184072	120072	533.3	3.7	143.1
5	22869	Midland-Cooks Ferry	Recloser	SWR262	8/5/2020	37666	16744627	118055	444.6	3.1	141.8
6	23681	Woodville	Recloser	ER240	1/26/2021	32960	14386903	104337	436.5	3.2	137.9
7	23660	Crescent	Sectionalizer	WA555	8/25/2020	31831	13950449	97134	438.3	3.1	143.6
8	23718	Pine Creek	Recloser	WR1000	2/5/2021	22338	13196972	27155	590.8	1.2	486
9	23882	Rankin	Recloser	ER52	8/28/2020	17924	12494403	90693	497.3	3.6	137.8
10	23841	Arsenal	Recloser	WR1060	2/23/2021	35930	12406202	114440	353.9	3.3	108.4
11	23870	Mt. Nebo	Recloser	WR299	8/23/2020	33392	11959442	63990	358.2	1.9	186.9
12	23880	Rankin	Sectionalizer	EA95	12/24/2020	28995	11618428	31475	358.9	1	369.1
13	23902	Plum	Fuse link	80E	3/1/2021	29575	10991719	86558	332.6	2.6	127
14	23732	Universal	Sectionalizer	EA45	11/16/2020	22910	10540738	125890	467.8	5.6	83.7
15	23670	Montour	Recloser	ER254	12/26/2020	34595	10446030	61922	302	1.8	168.7
16	23694	Brunot Is.	Sectionalizer	WA432	3/7/2021	28410	10439052	71224	367.4	2.5	146.6
17	23614	Findlay	Recloser	WR634	12/22/2020	27879	10435126	47406	374.3	1.7	220.1
18	23661	Crescent	Sectionalizing switch	2154	10/26/2020	29773	9567568	78592	321.4	2.6	121.7
19	23862	Wilson	Sectionalizer	EA1146	12/17/2020	37666	9386381	44408	251.4	1.2	211.4
20	23867	Wildwood	Recloser	WR977	1/20/2021	32745	9115198	59381	278.4	1.8	153.5
21	23703	North	Sectionalizer	WA377	8/28/2020	22232	8905362	25644	400.6	1.2	347.3
22	23881	Rankin	Sectionalizer	EA233	3/25/2021	19983	8871520	84291	448.6	4.3	105.2
23	23783	Valley	Sectionalizer	WA225	5/29/2020	35257	8653041	96252	245.4	2.7	89.9
24	23711	Pine Creek	Recloser	WR391	8/15/2020	22021	8572286	65352	389.3	3	131.2
25	23770	Traverse Run	Recloser	WR506	11/6/2020	24524	8433096	102628	343.9	4.2	82.2
26	23716	Pine Creek	Recloser	WR384	11/12/2020	35398	8246829	67240	233	1.9	122.6
27	23640	Midland	Recloser	WR276	3/27/2021	31306	8213112	32874	262.3	1.1	249.8

Duquesne Light Company  
 First Quarter 2021 Electric Reliability Report

AMENDED

Rank	Circuit No	Circuit Name	Equipment Type	Device	Last Lockout	Ckt KVA	Total KVA Min Interrupted	Total KVA Interrupted	SAIDI	SAIFI	CAIDI
1	23714	Pine Creek	SECTIONALIZER	WA609	2021-03-28	32875	38534797	202898	1172.16	6.17	189.92
2	23921	Logans Ferry	FUSE LINK	Pole # 109091	2021-03-01	30891	27923250	70242	864.03	2.18	397.53
3	23646	Wolfe Run	SECTIONALIZER	WA483	2020-08-27	36176	19143001	74392	529.16	2.06	257.33
4	23706	North	SECTIONALIZER	WA832	2021-03-28	32220	17184072	120072	533.34	3.73	143.11
5	22869	Midland-Cooks Ferry	FUSE LINK	Pole # 129477	2020-12-01	37666	16744627	118055	444.56	3.13	141.84
6	23681	Woodville	FUSE LINK	Pole # 110610	2021-03-26	32960	14386903	104337	436.50	3.17	137.89
7	23660	Crescent	FUSE LINK	Pole # 347506	2021-03-26	31831	13950449	97134	438.27	3.05	143.62
8	23718	Pine Creek	S.S. BREAKER	BREAKER	2021-02-05	22338	13196972	27155	590.79	1.22	485.99
9	23882	Rankin	S.S. BREAKER	BREAKER	2020-12-11	17924	12494403	90693	497.29	3.60	137.77
10	23841	Arsenal	SECTIONALIZER	WR362	2020-12-25	35930	12406202	114440	353.93	3.28	108.41
11	23870	Mt. Nebo	FUSE LINK	Pole # 71871	2020-11-16	33392	11959442	63990	358.15	1.92	186.90
12	23880	Rankin	SECTIONALIZER	EA95	2020-12-24	28995	11618428	31475	358.90	0.97	369.13
13	23902	Plum	FUSE LINK	Pole # 259201	2021-01-04	29575	10991719	86558	332.57	2.62	126.99
14	23732	Universal	S.S. BREAKER	BREAKER	2020-11-15	22910	10540738	125890	467.79	5.58	83.73
15	23670	Montour	S.S. BREAKER	BREAKER	2020-12-26	34595	10446030	61922	301.95	1.79	168.70
16	23694	Brunot Is.	FUSE LINK	Pole # 5634	2020-06-21	28410	10439052	71224	367.44	2.51	146.57
17	23614	Findlay	RECLOSER	WR634	2020-12-22	27879	10435126	47406	374.30	1.70	220.12
18	23661	Crescent	S.S. BREAKER	BREAKER	2020-08-27	29773	9567568	78592	321.35	2.64	121.74
19	23862	Wilson	FUSE LINK	Pole # 180339	2021-03-26	37666	9386381	44408	251.43	1.19	211.37
20	23867	Wildwood	FUSE LINK	Pole # 310	2020-12-16	32745	9115198	59381	278.37	1.81	153.50
21	23703	North	FUSE LINK	Pole # 315568	2021-03-10	22232	8905362	25644	400.57	1.15	347.27
22	23881	Rankin	S.S. BREAKER	BREAKER	2021-03-25	19983	8871520	84291	448.64	4.27	105.25
23	23783	Valley	S.S. BREAKER	BREAKER	2021-02-28	35257	8653041	96252	245.43	2.73	89.90
24	23711	Pine Creek	FUSE LINK	Pole # 38219	2020-10-13	22021	8572286	65352	389.28	2.97	131.17
25	23770	Traverse Run	FUSE LINK	Pole # 162064	2020-08-28	24524	8433096	102628	343.87	4.18	82.17
26	23716	Pine Creek	FUSE LINK	Pole # 357712	2021-01-26	35398	8246829	67240	232.97	1.90	122.65
27	23640	Midland	FUSE LINK	Pole # 125426	2020-10-20	31306	8213112	32874	262.35	1.05	249.84