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November 2, 2020

**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 – 3<sup>rd</sup> Quarter 2020**  
**Docket No. M-2016-2522508**

Dear Secretary Chiavetta:

Enclosed please find Duquesne Light Company's Quarterly Electric Reliability Report for the third quarter of 2020. 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**." It is submitted via email as directed in the Emergency Order dated March 20, 2020 (Docket Number M-2020-3019262). 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 or Chris Johnson at 412-393-6496 or [cjohnson@duqlight.com](mailto:cjohnson@duqlight.com).

Sincerely,

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

Lindsay A. Baxter  
Manager, State Regulatory Strategy

Enclosure

cc (w/ redacted version):

Dan Searfoorce ([dsearfoorc@pa.gov](mailto:dsearfoorc@pa.gov))  
John Van Zant ([jvanzant@pa.gov](mailto:jvanzant@pa.gov))  
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***Duquesne Light Company  
Third Quarter 2020  
Electric Reliability Report  
to the  
Pennsylvania Public Utility Commission***

***October 30, 2020***

**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 third quarter of 2020.

**(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**

<b>Entire System</b>				
	<b>SAIDI</b>	<b>SAIFI</b>	<b>CAIDI</b>	<b>MAIFI</b>
<b>Benchmark</b>	126	1.17	108	*
<b>12 Month Standard</b>	182	1.40	130	*
<b>2020 3Q (Rolling 12 mo)</b>	102	0.81	126	*

\* Sufficient information to calculate MAIFI is unavailable.

**Formulas used in calculating the indices**

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

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

$$\text{CAIDI} = \text{SAIDI/SAIFI}$$

**Data used in calculating the indices**

Total KVA Interrupted for the Period: (excludes the 4/8/20 Major Event that is listed below)	6,239,470 KVA
Total KVA-Minutes Interrupted: (excludes the 4/8/20 Major Event that is listed below)	785,177,924 KVA-Minutes
System Connected Load as of 9/30/20	7,722,291 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).**

**Third Quarter 2020 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>4 Total Outage(s)</p> <p>Third Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by equipment failure.</li> <li>• One outage was caused by tree fall-in 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> </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 preparing a scope of work to improve the reliability of this circuit.</li> <li>• Vegetation Management completed Q4 2018. Proposed for 2023.</li> </ul>
<p>2  22869 Midland Cooks Ferry  Fuse Link</p>	<p>4 Total Outage(s)</p> <p>Third Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by lightning.</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 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 2019 and all high priority repairs completed.</li> <li>• The Company issued a fusing scope of work in Q4 2019 and is currently being engineered.</li> <li>• The Company issued a reliability related scope of work in Q3 2020 as a result of Q2 2020 review.</li> <li>• Vegetation Management completed Q3 2017. Proposed for 2022.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>3  23646 Wolfe Run  S.S. Breaker</p>	<p>2 Total Outage(s)</p> <p>Third 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 2018 and all high priority repairs completed.</li> <li>• Vegetation Management completed Q2 2018. Proposed for 2024.</li> </ul>
<p>4  23921 Logans Ferry  Fuse Link</p>	<p>2 Total Outage(s)</p> <p>Third 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 issued a scope of work in Q4 2018 to improve reliability. The installation of an Interrupter was completed Oct 2019.</li> <li>• The Company is preparing a scope of work to improve the reliability of this circuit with additional lateral fusing.</li> <li>• Vegetation Management completed Q4 2016. Scheduled for Q4 2020.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>5 23706 North Recloser</p>	<p>1 Total Outage(s)</p> <p>Third Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by tree fall-in Outside ROW.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• No outages</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Distribution Overhead Line Inspection scheduled for 2021.</li> <li>• The Company has completed a coordination review and is preparing a scope of work to install and replace necessary protective equipment.</li> <li>• Vegetation Management completed Q3 2018. Proposed for 2022.</li> </ul>
<p>6 23882 Rankin Recloser</p>	<p>3 Total Outage(s)</p> <p>Third Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by wires wrapping.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by equipment failure.</li> <li>• One outage was caused by outside contractor work.</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 issued a scope of work in Q2 2020 to reroute a lateral underground.</li> <li>• Vegetation Management completed Q1 2017. Proposed for 2021.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>7</p> <p>23716 Pine Creek</p> <p>Recloser</p>	<p>2 Total Outage(s)</p> <p>Third Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• Two outages were caused by tree fall-in Outside ROW.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• No outages.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Distribution Overhead Line Inspection performed in 2019 and all high priority repairs completed.</li> <li>• The Company is issuing a scope of work to install a circuit tie.</li> <li>• Vegetation Management completed Q1 2019. Proposed for 2023.</li> </ul>
<p>8</p> <p>23718 Pine Creek</p> <p>S.S. Breaker</p>	<p>1 Total Outage(s)</p> <p>Third Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by tree fall-in Outside ROW.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• No outages.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• 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  23660 Crescent  Fuse Link</p>	<p>3 Total Outage(s)</p> <p>Third Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by equipment failure.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• Two outages were caused by 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 issued a fusing scope of work in Q3 2020 as a result of Q2 2020 review.</li> <li>• The Company is investigating a scope of work for construction of a circuit tie to improve reliability as a result of Q2 2020 review.</li> </ul>
<p>10  23661 Crescent  S.S. Breaker</p>	<p>4 Total Outage(s)</p> <p>Third Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• Two outages were 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> </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 issued a fusing scope of work in Q3 2020.</li> <li>• Vegetation Management completed Q2 2015. Scheduled for Q4 2020.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>11  23732 Universal  Sectionalizer</p>	<p>2 Total Outage(s)</p> <p>Third Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by wires wrapped in high winds.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• The cause of one outage was unknown.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Distribution Overhead Line Inspection performed in 2017 and all high priority repairs completed.</li> <li>• The Company is preparing a scope of work to install protective fuses.</li> <li>• Vegetation Management completed Q4 2017. Proposed for 2021.</li> </ul>
<p>12  23670 Montour  S.S. Breaker</p>	<p>4 Total Outage(s)</p> <p>Third 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 equipment failure.</li> <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>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Distribution Overhead Line Inspection scheduled for 2021.</li> <li>• The Company issued a fusing scope of work that was completed in Q3 2020.</li> <li>• The Company issued a scope of work Q1 2020 for construction of a circuit tie to improve reliability which is currently being engineered.</li> <li>• Vegetation Management completed Q1 2018. Proposed for 2022.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>13 23867 Wildwood Fuse Link</p>	<p>7 Total Outage(s)</p> <p>Third Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by storm.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• The cause of four outages was unknown.</li> <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>• 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 Q3 2016. Scheduled for Q4 2020.</li> </ul>
<p>14 23783 Valley S.S. Breaker</p>	<p>4 Total Outage(s)</p> <p>Third Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• The cause of one outage was unknown.</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 Inside 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 issued a reliability-related scope of work in Q3 2020 as a result of Q2 2020 review.</li> <li>• Vegetation Management completed Q1 2017. Proposed for 2022.</li> </ul>
<p>15 23711 Pine Creek Fuse Link</p>	<p>4 Total Outage(s)</p> <p>Third Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• Two outages were caused by tree fall-in Outside Row.</li> <li>• The cause of one outage was unknown.</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 2018 and all high priority repairs completed.</li> <li>• Vegetation Management completed Q4 2015. Proposed for 2021.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>16  23870 Mt. Nebo  Recloser</p>	<p>2 Total Outage(s)</p> <p>Third 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 is reviewing coordination of fuses and protective devices.</li> <li>• Vegetation Management completed Q4 2017. Proposed for 2021.</li> </ul>
<p>17  23880 Rankin  Sectionalizer</p>	<p>2 Total Outage(s)</p> <p>Third 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 contact with contractor equipment.</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>18  23902 Plum  Fuse Link</p>	<p>4 Total Outage(s)</p> <p>Third Quarter 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 equipment failure.</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 2021.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>19  23640 Midland  Recloser</p>	<p>3 Total Outage(s)</p> <p>Third Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• No outages.</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 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 2017 and all high priority repairs completed.</li> <li>• The Company issued a reliability-related scope of work in Q3 2020 as a result of Q2 2020 review.</li> </ul>
<p>20  23953 Evergreen  Fuse Link</p>	<p>2 Total Outage(s)</p> <p>Third Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by high winds wrapping wires.</li> <li>• One outage was caused by storm.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• No outages.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Distribution Overhead Line Inspection performed in 2020 and all high priority repairs completed.</li> <li>• The Company is reviewing coordination of fuses and protective devices.</li> </ul>

<b>Rank, Circuit Name, Device</b>	<b>Outages</b>	<b>Remedial Actions Planned or Taken</b>
<p>21 4845 Fairview S.S. Breaker</p>	<p>4 Total Outage(s)</p> <p>Third Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• No outages.</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 tornado.</li> <li>• One outage was caused by storm.</li> <li>• The cause of one outage was unknown.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Distribution Overhead Line Inspection performed in 2017 and all high priority repairs completed.</li> <li>• The Company is investigating a scope of work for construction of a circuit tie to improve reliability as a result of Q2 2020 review.</li> <li>• Vegetation Management completed Q4 2018. Proposed for 2023.</li> </ul>
<p>22 23703 North Fuse Link</p>	<p>3 Total Outage(s)</p> <p>Third Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• No outages.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• The cause of one outage was unknown.</li> <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>• 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>• 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>23  23769 Bryn Mawr  Fuse Link</p>	<p>3 Total Outage(s)</p> <p>Third Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by tree fall-in Outside ROW.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by animal contact.</li> <li>• One outage was caused by 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 2018 and all high priority repairs completed.</li> <li>• Vegetation Management completed Q4 2019. Proposed for 2024.</li> </ul>
<p>24  23844 Arsenal  Fuse Link</p>	<p>3 Total Outage(s)</p> <p>Third Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by contact with balloon.</li> <li>• Two outages were caused by tree fall-in Outside ROW.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• No outages.</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Distribution Overhead Line Inspection performed in 2020 and all high priority repairs completed</li> <li>• The Company is preparing a scope of work to install additional fuses on this circuit.</li> <li>• Vegetation Management completed Q4 2016. Proposed for 2021.</li> </ul>
<p>25  23681 Woodville  Recloser</p>	<p>2 Total Outage(s)</p> <p>Third Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by vehicle contact with company equipment.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage 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>26 23846 Arsenal S.S. Breaker</p>	<p>4 Total Outage(s)            Third Quarter 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> <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 2017 and all high priority repairs completed.</li> <li>• Vegetation Management completed Q4 2017. Proposed for 2021.</li> </ul>
<p>27 23841 Arsenal S.S. Breaker</p>	<p>1 Total Outage(s)            Third Quarter Outage(s):</p> <ul style="list-style-type: none"> <li>• One outage was caused by equipment failure.</li> </ul> <p>Previous Outage(s):</p> <ul style="list-style-type: none"> <li>• No outages</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent repairs were made following each outage as necessary.</li> <li>• The Company will continue to monitor this circuit for reliability issues.</li> <li>• Distribution Overhead Line Inspection performed in 2017 and all high priority repairs completed.</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.

**October 1, 2019 through September 30, 2020 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	342	11%	769,873	12%	145,360,324	18%
Trees (Inside ROW)	121	4%	161,385	3%	28,844,859	4%
Trees (Outside ROW)	966	30%	1,707,068	27%	295,655,991	38%
Equipment Failures	767	24%	1,927,865	31%	189,741,688	24%
Overloads	137	4%	47,938	<1%	4,839,258	<1%
Vehicles	165	5%	476,559	8%	44,502,251	6%
Contact/Dig In	34	1%	101,452	2%	5,590,800	1%
Animal Contact	121	4%	254,418	4%	9,087,498	1%
Unknown	357	11%	496,452	8%	28,399,616	4%
Other	176	6%	296,460	5%	33,155,639	4%
<b>TOTALS</b>	<b>3,186</b>	<b>100%</b>	<b>6,239,470</b>	<b>100%</b>	<b>785,177,924</b>	<b>100%</b>

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

2020 Transmission and Distribution Goals and Objectives							
Program Project	Unit of Measurement	Target for 2020 3Q	Actual for 2020 3Q	3Q Percent Complete	Targets for Year 2020	Actual YTD for 2020	Year End % Complete
<b>Communications Goals</b>							
Communication Battery Maintenance	Battery Tasks	27	26	96%	108	81	75%
<b>Overhead Distribution Goals</b>							
Recloser Inspections	Circuits	35	20	57%	121	117	97%
Pole Inspections	Poles	6,630	7,122	107%	17,677	9,754	55%
OH Line Inspections	Circuits	35	20	57%	121	117	97%
OH Transformer Inspections	Circuits	35	20	57%	121	117	97%
Padmount & Below Grade Insp	Circuits	0	0	N/A	76	71	93%
<b>Overhead Transmission Goals</b>							
Helicopter Inspections	Number of Circuits	0	0	N/A	11	15	136%
Ground Inspections	Number of Structures	20	0	N/A	354	350	99%
<b>Substations Goals</b>							
Circuit Breaker Maintenance	Breaker Tasks	88	62	70%	364	361	99%
Station Transformer Maintenance	Transformer Tasks	0	14	N/A	44	26	59%
Station Battery Maintenance	Battery Tasks	220	245	111%	880	645	73%
Station Relay Maintenance	Relay Tasks	458	187	41%	1,392	1,003	72%
Station Inspections	Site Visits	465	465	100%	1860	1,395	75%
<b>Underground Distribution Goals</b>							
Manhole Inspections	Manholes	213	90	42%	700	400	57%
Major Network Insp (Prot Relay)	Network Protectors	20	23	115%	94	62	66%
Minor Network Visual Inspection (Transformer/Protector/Vault)	Network Transformers	82	22	27%	572	542	95%
<b>Underground Transmission Goals</b>							
Pressurization and Cathodic Protection Plant Inspection	Work Orders	94	90	96%	372	279	75%
<b>Vegetation Management Goals</b>							
Overhead Line Clearance	Circuit Overhead Miles	346	406	117%	1,300	1,073	83%

*(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 September 30, 2020  
 (In Whole Dollars)  
 Favorable/(Unfavorable)

	<b>Total Actual</b>	<b>Total Budget</b>	<b>Variance</b>
<b>Customer Service</b>	\$23,332,479	\$20,378,206	(\$2,954,273)
<b>Human Resources</b>	3,694,982	4,367,745	672,763
<b>Operations/Operation Services</b>	18,372,174	18,581,619	209,445
<b>Technology</b>	12,604,833	12,957,632	352,799
<b>General Corporate*</b>	10,300,754	11,144,137	843,383
<b>Total</b>	\$68,305,222	\$67,429,339	(\$875,883)

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

Budget Variance Recap – O&M Expenses  
 Year to Date through September 30, 2020  
 (In Whole Dollars)  
 Favorable/(Unfavorable)

	<b>Total Actual</b>	<b>Total Budget</b>	<b>Variance</b>
<b>Customer Service</b>	\$49,613,014	\$46,522,684	(\$3,090,330)
<b>Human Resources</b>	11,651,266	13,299,803	1,648,537
<b>Operations/Operation Services</b>	54,066,805	55,010,688	943,883
<b>Technology</b>	39,339,776	39,359,464	19,688
<b>General Corporate*</b>	38,355,263	33,526,037	(4,829,226)
<b>Total</b>	\$193,026,124	\$187,718,676	(\$5,307,448)

\*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 September 30, 2020  
(In Whole Dollars)  
Favorable/(Unfavorable)

	<b>Total Actual</b>	<b>Total Budget</b>	<b>Variance</b>
<b>Customer Service</b>	\$2,055,337	\$2,343,023	\$287,686
<b>Human Resources</b>	3,168,766	3,707,391	538,625
<b>Operations/Operation Services</b>	57,879,975	85,141,954	27,261,979
<b>Technology</b>	8,547,411	8,628,549	81,138
<b>General Corporate*</b>	13,006,558	9,285,469	(3,721,089)
<b>Total</b>	<b>\$84,658,047</b>	<b>\$109,106,386</b>	<b>\$24,448,339</b>

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

Budget Variance Recap - Capital  
Year to Date through September 30, 2020  
(In Whole Dollars)  
Favorable/(Unfavorable)

	<b>Total Actual</b>	<b>Total Budget</b>	<b>Variance</b>
<b>Customer Service</b>	\$6,117,069	\$6,993,219	\$876,150
<b>Human Resources</b>	8,605,678	10,668,317	2,062,639
<b>Operations/Operation Services</b>	195,226,656	244,851,108	49,624,452
<b>Technology</b>	23,082,015	26,651,914	3,569,899
<b>General Corporate*</b>	38,549,349	36,492,262	(2,057,087)
<b>Total</b>	<b>\$271,580,767</b>	<b>\$325,656,820</b>	<b>\$54,076,053</b>

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

(e)(9) *Dedicated staffing levels for transmission and distribution operation and maintenance at the end of the quarter, in total and by specific category (e.g. linemen, technician, and electrician).*

<b>Job Title</b>	<b>Number of Employees</b>
Telecom Splicer/Trouble Tech	6
Electronic Technician	17
Telecom Technician	2
<b>Total Telecom</b>	<b>25</b>
Electrical Equipment Technician	37
Protection & Control Technician	33
Yard Group Leader	3
Rigger	6
Laborer	2
<b>Total Substation</b>	<b>81</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	33
Equipment Attendant	0
Lineworker	126
Service Crew Leader	4
Equipment Material Handler	6
<b>Total Overhead</b>	<b>169</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	40
GIS Technician	7
T&D Mobile Worker	5
Test Technician, Mobile	6
<b>Total Engineering</b>	<b>58</b>
Senior Operator Apprentice	41
Senior Operator	26
Troubleshooter	16
<b>Total Traveling Operator/Troubleshooter</b>	<b>83</b>
<b>Total Switching Dispatcher</b>	<b>11</b>
<b>Total Employees</b>	<b>502</b>

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

**CONFIDENTIAL INFORMATION**

**3<sup>rd</sup> Quarter 2020**

Contractor Dollars: \$ REDACTED  
Contractor Hours: REDACTED

**YTD 2020**

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 –3<sup>rd</sup> Quarter 2020**

REDACTED

**Amount of Time it Takes to Obtain the Necessary Personnel – 3<sup>rd</sup> Quarter 2020**

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.*

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	2020-09-29	24285	29946781	91388	1233.139	3.763146	327.6883
2	22869	Midland-Cooks Ferry	Fuse Link	100K	2020-09-09	45166	19642739	156344	434.901	3.461542	125.6379
3	23646	Wolfe Run	S.S. Breaker	BKR	2020-08-30	36176	19411014	74935	536.5716	2.071401	259.038
4	23921	Logans Ferry	Fuse Link	80E	2020-09-19	32875	19069366	28625	580.0568	0.870722	666.1787
5	23706	North	Recloser	R100	2020-09-14	32220	13920675	131365	432.0507	4.077126	105.9694
6	23882	Rankin	Recloser	ER52	2020-09-30	25319	13776637	85903	544.1225	3.392828	160.3743
7	23716	Pine Creek	Recloser	R100	2020-09-15	34563	13386105	48047	387.2958	1.390128	278.6044
8	23718	Pine Creek	S.S. Breaker	BKR	2020-09-23	22338	13163592	26540	589.2914	1.18811	495.9907
9	23660	Crescent	Fuse Link	100K	2020-09-29	31831	12805399	97220	402.2933	3.054255	131.7157
10	23661	Crescent	S.S. Breaker	BKR	2020-09-17	29773	11383287	95865	382.3359	3.219864	118.7429
11	23732	Universal	Sectionalizer	EA45	2020-09-12	23538	10851602	102825	461.0248	4.368468	105.5347
12	23670	Montour	S.S. Breaker	BKR	2020-09-27	33087	10500933	60620	317.3734	1.83214	173.2256
13	23867	Wildwood	Fuse Link	100K	2020-09-26	32745	10410867	91543	317.9376	2.795633	113.7265
14	23783	Valley	S.S. Breaker	BKR	2020-09-28	35257	10066570	113433	285.5198	3.217319	88.74463
15	23711	Pine Creek	Fuse Link	80E	2020-09-30	22021	10015368	67712	454.8099	3.074883	147.9113
16	23870	Mt. Nebo	Recloser	R50	2020-09-21	33379	9802499	53153	293.6726	1.592408	184.4204
17	23880	Rankin	Sectionalizer	EA95	2020-09-24	33657	9749234	46221	289.6644	1.373295	210.9265
18	23902	Plum	Fuse Link	80E	2020-09-30	33092	9570221	107146	289.2004	3.237822	89.31944
19	23640	Midland	Recloser	WR595	2020-09-08	31306	9487936	46848	303.0708	1.496454	202.526
20	23953	Evergreen	Fuse Link	80E	2020-09-24	31030	9463941	79272	304.9933	2.554689	119.3857
21	4845	Fairview	S.S. Breaker	BKR	2020-09-30	6702	9112528	41563	1359.673	6.201582	219.2462
22	23703	North	Fuse Link	80E	2020-09-19	22222	8982889	26589	404.234	1.196517	337.8423
23	23769	Bryn Mawr	Fuse Link	100K	2020-08-28	24071	8634394	29699	358.7052	1.233808	290.7301
24	23844	Arsenal	Fuse Link	100K	2020-09-29	30732	8384269	95256	272.8189	3.09957	88.01828
25	23681	Woodville	Recloser	R200	2020-09-08	32960	8241902	44499	250.0577	1.350091	185.2154
26	23846	Arsenal	S.S. Breaker	BKR	2020-09-27	36148	7433275	52518	205.6345	1.45286	141.5377
27	23841	Arsenal	S.S. Breaker	BKR	2020-09-28	34765	7387168	87097	212.4887	2.505307	84.81541