



**VIA E-FILING**

January 28, 2020

Ms. Rosemary Chiavetta, Secretary  
Pennsylvania Public Utility Commission  
Commonwealth Keystone Building  
400 North Street  
Harrisburg, PA 17120

**RE: 4<sup>th</sup> Quarter Electric System Reliability Report  
12 Months Ending December 31, 2019  
Docket No. M-2016-2522508**

Dear Secretary Chiavetta:

Pursuant to the Commission's May 7, 2004 Final Rulemaking Order amending Electric Service Reliability Regulations (52 Pa. Code §§57.191 - 57.197) at Docket No. M-2016-2522508, UGI Utilities, Inc. - Electric Division ("UGI") hereby files its Quarterly System Reliability Report. This report contains SAIDI, SAIFI, and CAIDI results on a 12-month rolling basis for the period ending December 31, 2019 along with the raw data from the same period. Also included is a breakdown of outages by cause for the 12 months ending December 31, 2019. UGI continues to review and evaluate the recent decline in reliability performance to ensure the identification of underlying cause(s) and the appropriate short and or long term response strategy.

The Office of Consumer Advocate, the Office of Small Business Advocate, the Bureau of Audits, and the Bureau of Technical Utility Services are each being served with copies of this filing.

Questions related to the attached report should be directed to Mr. Vince DeGiusto, Jr. at (570) 830-1289 or email [vdegiustojr@ugi.com](mailto:vdegiustojr@ugi.com).

Sincerely,

A handwritten signature in black ink that reads 'Eric Sorber'. The signature is written in a cursive, flowing style.

Eric Sorber  
Vice-President & GM Electric Division  
Attachment

cc: **VIA FEDERAL EXPRESS**

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**UGI Utilities, Inc. – Electric Division  
System Reliability Report:  
Quarterly Update**

**January 28, 2020**

**UGI Utilities, Inc. – Electric Division  
System Reliability Report**

**§ 57.195(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.**

There were no major events during the preceding quarter.

**§ 57.195(e)(2) – Rolling 12-month reliability index values (SAIFI, CAIDI, SAIDI and if available, MAIFI) for the EDC’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.**

The 12 month rolling reliability results for UGI’s service area are as follows:

	SAIDI	SAIFI	CAIDI
<b>12-Month Standard</b>	<b>256</b>	<b>1.12</b>	<b>228</b>
<b>12-Month Benchmark</b>	<b>140</b>	<b>0.83</b>	<b>169</b>
12 months Ended December 31, 2019	182	0.96	188

SAIDI: System Average Interruption Duration Index  
SAIFI: System Average Interruption Frequency Index  
CAIDI: Customer Average Interruption Duration Index

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**Raw Data: January 2019 – December 2019**

<b>Month</b>	<b>SI</b>	<b>TCI</b>	<b>TCB</b>	<b>TMCI</b>
Jan-2019	19	1,018	62,472	100,178
Feb-2019	40	6,750	62,462	436,307
Mar-2019	23	922	62,459	53,936
Apr-2019	31	123	62,389	30,120
May-2019	86	6,911	62,389	3,081,391
Jun-2019	39	8,504	62,109	566,506
Jul-2019	89	8,894	62,000	1,141,711
Aug-2019	66	8,457	61,977	3,686,128
Sep-2019	27	5,743	61,707	351,805
Oct-2019	32	5,183	61,535	719,218
Nov-2019	54	1,579	62,090	488,208
Dec-2019	25	5,862	62,078	640,951
<b>TOTAL</b>	<b>531</b>	<b>59,946</b>	<b>62,139 *</b>	<b>11,296,459</b>

\* 12-month arithmetic average

SI: Sustained Interruptions  
 TCI: Total Customers Interrupted  
 TCB: Total Customer Base  
 TMCI: Total Minutes Customer Interruption

**SAIDI**

The SAIDI value for the 12 months ending December 2019 is 182. This result is 13% higher than results reported through September 2019.

**SAIFI**

The 12-month rolling SAIFI index increased from 0.85 in our last quarterly report to 0.96 for the period ending December 2019.

**CAIDI**

The CAIDI result of 188 for the 12-month reporting period ending December 2019 has decreased 1% from our last report.

SAIFI, SAIDI and CAIDI are all below the 12-Month standard but all above the 12-Month benchmark. UGI has conducted a review of the quarter and found that the most significant contribution to the reliability metrics was a failed porcelain insulator, which caused a transmission outage resulting in the loss of a radial substation until switching could be completed. UGI has several ongoing reliability projects and continues to look for new reliability solutions that will address problems identified in our review. This includes replacement of porcelain insulators, development of new tie-lines, feeder segmentation, line relocations, distribution automation and targeted vegetation management.

**UGI Utilities, Inc. – Electric Division  
System Reliability Report**

**§57.195(e)(5)–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 the 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.**

**Outage by Cause: January 2019 - December 2019**

<b>Outage Cause</b>	<b>% Of Total Incidents</b>	<b>Number of Interruptions</b>	<b>Customers Interrupted</b>	<b>Minutes Interrupted</b>
Animal	11.49%	61	3,806	107,513
Company Agent	0.19%	1	1	323
Construction Error	0.00%	0	0	0
Customer Problem	0.38%	2	3	4,606
Dig In	0.19%	1	1	1,081
Equipment Failure	21.85%	116	20,614	1,966,368
Lightning	5.27%	28	4,912	1,139,757
Motor Vehicle	3.58%	19	2,935	313,335
Other	1.32%	7	1,748	45,280
Public	1.69%	9	592	25,204
Structure Fire	0.19%	1	1	189
Trees	33.15%	176	13,570	2,859,724
Unknown	3.95%	21	963	151,434
Weather Related	13.18%	70	7,214	3,930,163
Weather/Snow	0.19%	1	3	678
Weather/Ice	2.07%	11	1,822	156,692
Weather/Wind	1.32%	7	1,761	594,112
	100.00%	531	59,946	11,296,459

**Proposed Solutions to Identified Problems:**

UGI has identified and is addressing an increased number of danger trees resulting from the decline of the Pennsylvania ash tree. This species has been impacted by the Emerald Ash Borer throughout the UGI service territory. UGI has added an additional vegetation crew to assist with an increased number of danger tree removals. UGI is also investigating the use of fault location, isolation and service restoration technology, which has the potential to significantly reduce UGI customer outage times.