



UGI Utilities, Inc.
One UGI Center
Wilkes-Barre, PA 18711

July 30, 2021

VIA E-FILING

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

**RE: UGI Utilities, Inc. – Electric Division
Quarterly Electric System Reliability Report – 2nd Quarter 2021
12 Months Ending June 30, 2021
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 June 30, 2021 along with the raw data from the same period. Also included is a breakdown of outages by cause for the 12 months ending June 30, 2021. The actual statistics are favorable to both the benchmark and standard adopted for UGI.

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 Kyle Stair at (570) 407-2641 or email kstair@ugi.com.

Sincerely,

Eric Sorber
Vice President & General Manager - Electric Division

Attachment

cc: **VIA ELECTRONIC MAIL**

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

July 30, 2021

**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.

A major event occurred on June 28th, 2021 at 14:53 affecting 6,394 customers over a period of 3 hours and 45 minutes. The outage was caused by an incorrect test setting on an electromechanical relay that tripped the bus overload protection on a bank breaker at a lower current value than designed. This resulted in the isolation and outage of one distribution bus at the Swoyersville substation, interrupting service to the customers. The incorrect setting resulted from a procedural error during routine maintenance/testing that took place in March 2021. On June 28, 2021, the UGI system was experiencing an extended heat wave which caused higher than normal load current at the substation. As a result, the elevated load currents through the bank breaker exceeded the incorrect minimum pickup level of the relay, which triggered the outage and loss of service to our customers.

To prevent future occurrences, UGI modified the test procedures for electromechanical relays to eliminate the need to move taps and still provide for a thorough test of the relay. Furthermore, a method of comparing and documenting the relay settings ‘as found’ before testing, ‘as desired’ by the relay data manual, and ‘as left’ after testing, has been added to the relay testing procedures to ensure the ‘as left’ settings are correct before placing a relay into service after testing.

This event was submitted by UGI on July 13, 2021 under Docket No. M-00991220 as a Request for Exclusion of a Major Outage. This event is included in the reliability metrics for Q2 as a decision on the request to exclude has yet to be rendered.

§ 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
12-Month Standard	256	1.12	228
12-Month Benchmark	140	0.83	169
12 months Ended June 30, 2021	104	0.71	147

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

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

Raw Data: July 2020 through June 2021

Month	SI	TCI	TCB	TMCI
Jul-2020	59	1,777	62,008	232,425
Aug-2020	49	3,385	61,993	1,085,902
Sep-2020	35	679	62,009	82,773
Oct-2020	29	759	62,370	60,295
Nov-2020	91	6,458	62,341	831,071
Dec-2020	20	511	62,398	57,739
Jan-2021	21	1,074	62,378	114,691
Feb-2021	16	3,210	62,376	117,691
Mar-2021	140	7,622	62,267	1,985,209
Apr-2021	36	1,427	62,354	336,618
May-2021	42	2,734	62,418	407,821
Jun-2021	52	14,530	62,335	1,170,473
TOTAL	590	44,166	62,271 *	6,482,708

* 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 June 2021 is 104. This result is 17% higher than results reported through April 2021.

SAIFI

The 12-month rolling SAIFI index increased from 0.55 in our last quarterly report to 0.71 for the period ending June 2021.

CAIDI

The CAIDI result of 147 for the 12-month reporting period ending June 2021 has decreased 9% from our last report.

SAIFI, SAIDI, and CAIDI are all below the 12-Month Standard and the 12-Month Benchmark. UGI conducted a review of the quarter and found that the most significant contributions to the reliability metrics were the major event that occurred June 28th, discussed above, as well as periodic storms that caused weather related outage events throughout UGI's territory. UGI continues to storm harden the system through infrastructure upgrades, such as constructing tie lines, relocations, and adding sectionalizing points, and maintains an aggressive vegetation management program to mitigate damages from large weather events.

**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: July 2020 through June 2021

Outage Cause	% Of Total Incidents	Number of Interruptions	Customers Interrupted	Minutes Interrupted
Animal	10.17%	60	3,383	161,559
Company Agent	1.02%	6	8,171	633,083
Construction Error	0.17%	1	10	10,820
Customer Problem	0.00%	0	0	0
Dig In	0.34%	2	52	5,572
Equipment Failure	20.00%	118	9,467	601,628
Lightning	1.69%	10	1,148	211,202
Motor Vehicle	3.90%	23	2,328	531,117
Other	0.85%	5	14	1,865
Public	1.36%	8	699	36,010
Structure Fire	0.34%	2	55	12,144
Trees	54.75%	323	16,641	3,772,999
Unknown	4.75%	28	1,082	273,196
Weather Related	0.17%	1	1,108	219,384
Weather/Snow	0.00%	0	0	0
Weather/Ice	0.00%	0	0	0
Weather/Wind	0.51%	3	8	12,129
TOTAL	100.00%	590	44,166	6,482,708

Proposed Solutions to Identified Problems:

UGI continues to focus on two (2) critical reliability cause categories, vegetation, primarily off right-of-way trees, and equipment failures. With respect to equipment, UGI continues to replace aging system components through our Long-Term Infrastructure Improvement Plan (LTIP), including wood poles, porcelain insulators, underground cable and open wire secondary. To address vegetation related outages, UGI increased vegetation resources to accelerate hazard tree removals and to begin the process of reducing system vegetation trim cycles. Finally, UGI continues to add Distribution Automation (DA) devices, controllable from its Control Center, reducing outage duration by providing remote switching capability. When eventually coupled with fault location, isolation and service restoration technology (FLSR), UGI expects to reduce customer outage minutes on several worst performing feeders.