



July 22nd, 2019

Ms. Rosemary Chiavetta
Pennsylvania Public Utility Commission
PO Box 3265
Harrisburg, PA 17105-3265

RE: Docket No. M-2016-2522508 – Quarterly Reliability Report

Dear Secretary Chiavetta,

Enclosed please find the Second Quarter Reliability Report for Citizens' Electric Company. Please contact me at 570-522-6143 or johnsonn@citizenselectric.com if I can answer any questions.

Best Regards,

A handwritten signature in black ink, appearing to read "Nathan Johnson", with a stylized flourish at the end.

Nathan Johnson, PE

Sr. Director of Engineering & Operations

cc: Dan Searfoorce (via email)
Dave Washko (via email)

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Serving the Wonderful Lewisburg-Buffalo Valley since 1911

Citizens' Electric Company
Quarterly Service Reliability Report
Second Quarter, 2019

Prepared by Nathan Johnson, PE
Sr Director of Engineering & Operations
570-522-6143
johnsomn@citizenselectric.com
July 22nd, 2019

§ 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.

Date	Time	Duration (Minutes)	Customers Affected	Cause
4/15/2019	12:37 AM	2,342	2,695	An EF-1 tornado touched down within Citizens' Electric service area and traveled approximately 1.8 miles, accompanied by severe winds throughout the service area.
5/29/2019	4:04 PM	522	1,379	A severe storm producing winds in excess of 80mph, accompanied by lightning and heavy rain crossed the Citizens' Electric service area.
6/26/2019	4:44 PM	76	868	A severe storm blew debris into a 3ph distribution line, interrupting the entire circuit.

§ 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. If MAIFI values are provided, the report shall also include the number of customer momentary interruptions.

Rolling 12-Month Reliability Indices	
Index	Value
SAIFI	0.31
SAIDI	25.3
CAIDI	82.7

Reliability Indices – Supporting Data			
Total # of Customers Served	# of Interruptions	# of Customers Affected	Customer Minutes
7,057	70	2,161	178,674

The following outages were approved for exclusion as Major Events during the preceding 12-month period and are not included in the above calculations:

Major Event Exclusions		
Date	# of Customers Affected	Customer Minutes
7/21/2018	1,026	94,797
8/4/2018	1,022	77,216
9/10/2018	2,172	293,140
11/15/2018	7,036	838,839
1/9/2019	1,811	278,001
4/15/2019	2,695	757,999
5/29/2019	1,379	173,787
6/26/2019	868	65,664

§ 57.195(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.

Outage Analysis by Cause				
Outage Cause	Number of Interruptions	% of Interruptions	Number of Customers Affected	Customer Interruption Minutes
Off R/W Trees	19	27%	757	63,225
On R/W Trees	4	6%	79	7,527
Animal	11	16%	281	9,719
Weather	9	13%	397	46,416
Equipment	23	33%	600	48,457
Vehicle	0	0%	0	0
Other	4	6%	47	3,330
Total	70		2,161	178,674

Discussion

Reliability indices remained stable in the second quarter of 2019, with slight improvements in SAIFI and SAIDI and a slight increase in CAIDI. While total, non-event, interruptions increased slightly, fewer total customers were impacted. The second quarter was defined by substantial rainfall, with the service area on track for a record accumulation in 2019. This led to many outages caused by healthy trees giving way in saturated soils. Personnel have responded to this challenge with increased vigilance towards signs of destabilized soil or root systems in off R/W trees.

The quarter was marked by substantial weather event, that of an EF-1 tornado and accompanying storm cell that traversed a nearly perfect path along the centerline of the Company's service area. This storm ranked second in severity amongst comparable events within Company record, exceeding that of Hurricane Sandy. While not widespread meteorologically, the strongest winds centered directly over the Company's territory and covered nearly its entire area. Personnel rose to the challenge and—with help from outside resources—restored all customers within 38hrs. 90% of those affected were restored in 12 hours or less, proving the Company's readiness to respond quickly and efficient to large weather events.