April 17, 2023

E-FILED

Ms. Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
2nd Floor, Room-N201
400 North Street
Harrisburg, PA 17120

Re: **Wellsboro Electric Company 2022 Annual Electric Reliability Report Docket No.** ~~**M-2016-2522508**~~ M-2023-3039027-AEL-4/17/23

Dear Secretary Chiavetta:

Please find enclosed for filing Wellsboro Electric Company's 2022 Annual Electric Reliability.

If you have any questions regarding the information contained in this filing, please contact me at (570)724-6701 or barneyf@ctenterprises.org.

Sincerely,

Byron Farnsworth Jr.
President/CEO

Enclosure
c (w/ enc.):
Bureau of Technical Utility Services (jvanzant@pa.gov, dsearfoorc@pa.gov, hbidelspac@pa.gov)
Office of Consumer Advocate (pcuceri@paoca.org)
Office of Small Business Advocate (tereswagne@pa.gov)

2022 Annual Electric Reliability Report

to the

Pennsylvania Public Utility Commission

Wellsboro Electric Company
33 Austin Street
Wellsboro, PA 16901

April 17, 2023

WELLSBORO ELECTRIC COMPANY
ANNUAL ELECTRIC RELIABILITY REPORT

Filed April 17, 2023

52 Pa Code §57.195 Reporting Requirements

(a)(2) The name, title, telephone number and e-mail address of the persons who have knowledge of the matters, and can respond to inquiries.

Byron Farnsworth Jr. – President/CEO
(570)724-6701, barneyf@ctenterprises.org

Tyler Mead – Director of Engineering & Operations
(570)724-6725, tylerm@ctenterprises.org

(b)(1) An overall current assessment of the state of the system reliability in the electric distribution company's service territory including a discussion of the electric distribution company's current programs and procedures for providing reliable electric service.

Wellsboro Electric Company has maintained excellent reliability indices during 2022. The Company experienced 9 major events throughout 2022 including rain, wind, and heavy snow events that impacted reliability. The number of major events has held steady for 2022. The Company will continue trimming 70-75 miles per year which amounts to a circuit or a portion of a circuit each year and keeps us around a 5-year cycle. The Company identified hot spot trimming on the downtown three phase portion of the system. Danger trees were identified In and Out of ROW during the year and urgent removals were dealt with immediately and other Danger trees are prioritized and removed as funding is available.

In 2022, the Company has installed 12 new reclosers to help isolate outages to a smaller area, which has improved reliability on the system. In 2022 the Company reconductored 4 miles of 3 phase and installed group operated switches in 3 locations. In 2023 the Company plans to reconductor another 6 miles of line, and install other group operated switches. The Company will be pursuing grand funds in 2023 from the PADEP and/or DOE to continue resiliency and automation work.

The Company continues to participate in and gather information from various industry best practices groups. These groups include members from diverse utility groups such as the Pennsylvania Rural Electric Association, the Energy Association of Pennsylvania, and the National Rural Electric Cooperative Association. The Company will continue to implement best practices defined by these groups as appropriate.

The Company does not own or maintain any transmission facilities.

Current Maintenance Programs

Program	Description	Cycle
Infrared Inspection	All substation equipment monthly, and overhead lines as needed.	Monthly
Vegetation Management	Each year, primary lines are visually inspected on 4 circuits. This comprehensive field inspection allows us to identify areas that require trimming. We are striving to maintain a 5–6 year trimming cycle and the Boro is inspected annually to help identify unexpected "hot spots." Based on a bid the winning bidder. Trimmed 73.5 miles by the end of 2022.	2 Years – Visual 5-6 Years – Trimming
Visual Line Inspection	4 distribution circuits lines and pole hardware are visually inspected each year during preparation of tree trimming contract. Line sections receiving infrared inspection are also inspected visually during that process. Drones are used on a limited basis in tough to access ROWs to inspect structures, equipment and tree conditions. AppSuite is being used to capture specific information which is then transferred into our IVUE system to run reports.	2 Years
Overhead Transformer Inspection	Overhead equipment on 4 circuits are visually inspected each year to identify and correct any developing problems or safety concerns.	2 Years
Padmount Transformer Inspection	Padmounted equipment on 2 circuits are visually inspected each year to identify and correct any developing problems or safety concerns.	4 Years
Line Equipment Inspection	Air switches, circuit tie switches, capacitors, regulators, and reclosers are visually inspected during the Line Inspections each year. Where applicable, proper operation of control equipment is verified, and counter readings are recorded.	Annual
Pole Inspection	Poles are inspected at the ground line with a sonic and bore style test.	8 Years
Reject Pole Replacements	Replace condemned poles identified during pole inspection.	As needed, annually
Substation Equipment Inspection	Entire station is visually inspected. Equipment batteries are tested, communications equipment operation is verified, fans are tested, various gauge and counter readings are recorded. An infrared inspection is performed on all equipment monthly.	Monthly
Regulator/OCR Maintenance	We have replaced all mechanical OCR's. Tripsaver reclosers will be inspected during the Line Inspections each year. Regulators are visually inspected monthly	Monthly - Regulators Annually – OCR's

(b)(2) A description of each major event that occurred during the year being reported on, 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 of Event (Minutes)	#of Customers Affected	Cause
3/7/2022	6:03 PM	1688	735	High wind
4/19/2022	12:31 AM	1357	1239	Heavy snow
7/21/2022	4:50 PM	184	1731	Off ROW tree
7/22/2022	8:38 PM	63	815	Animal contact
8/4/2022	1:30 PM	162	743	High wind
8/30/2022	8:20 AM	159	755	Off ROW tree
9/24/2022	9:38 AM	138	1716	Off ROW tree
9/26/2022	2:44 PM	248	2338	Off ROW tree
12/23/2022	9:41 PM	1630	2550	High wind

(b)(3) A table showing the actual values of each of the reliability indices (SAIFI, CAIDI, SAIDI, and if available, MAIFI) for the electric distribution company's service territory for each of the preceding 3 calendar years. The report shall include the data used in calculating the indices, namely the average number of customers served, the number of sustained customer minutes interruptions, the number of customers affected, and the minutes of interruption. If MAIFI values are provided, the number of customer momentary interruptions shall also be reported.

RELIABILITY BENCHMARKS AND STANDARDS
Wellsboro Electric Company**

	SAIDI	SAIFI	CAIDI	MAIFI
2022	142	1.09	130	*
2021	133	.93	144	*
2020	115	1.18	97	*
3 Year Average	130	1.07	122	*

* Sufficient information to calculate MAIFI is unavailable.
****** System Performance Measures with Major Events and Planned Outages Excluded

Formulas Used in Calculating the Indices

$$\text{SAIFI} = \frac{\text{Number of Customers experiencing an Interruption}}{\text{Average Customers served}}$$

$$\text{SAIDI} = \frac{\text{(Total Cust.-minutes interrupted) - (Cust.-minutes for a major event)}}{\text{Average Customers served}}$$

CAIDI = SAIDI/SAIFI

(b)(4) A breakdown and analysis of outage causes during the year being reported on, including the number and percentage of service outages 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.

January 1, 2022 through December 31, 2022

Outage Cause	Number of Interruptions	% of Interruptions	Number of Customers Affected	Customer Interruption Minutes
Animal	57	24.9%	1277	180,514
Equipt Failure	35	15.3%	1351	255,308
Tree, On, R.O.W.	5	2.2%	64	10,310
Tree, Off R.O.W.	89	38.9%	3315	386,547
Unknown	35	15.3%	974	79,415
Lightning	8	3.5%	43	3,281
Total	**229**	**100.0%**	**7024**	**915,376**

January 1, 2021 through December 31, 2021

Outage Cause	Number of Interruptions	% of Interruptions	Number of Customers Affected	Customer Interruption Minutes
Animal	34	16.0%	288	13,823
Equipt Failure	38	17.8%	1393	170,500
Tree, On, R.O.W.	17	8.0%	537	60,863
Tree, Off R.O.W.	93	43.7%	3082	543,827
Unknown	27	12.7%	590	56,900
Lightning	4	1.9%	32	4,193
Total	**213**	**100.0%**	**5922**	**850,106**

January 1, 2020 through December 31, 2020

Outage Cause	Number of Interruptions	% of Interruptions	Number of Customers Affected	Customer Interruption Minutes
Animal	34	16.3%	581	40,799
Equipt Failure	41	19.7%	2633	184,652
Tree, On, R.O.W.	19	9.1%	662	89,914
Tree, Off R.O.W.	65	31.3%	2522	350,714
Unknown	45	21.6%	1074	62,225
Wind	4	1.9%	71	5,776
Total	**208**	**100.0%**	**7543**	**734,081**