Wellsboro Electric Company

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May 1, 2019

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

RE: Docket No. M-2016-2522508

Dear Secretary Chiavetta,

Enclosed please find the 2018 Annual Reliability Report for Wellsboro Electric Company.

Please contact me at 570-724-6701 or barneyf@ctenterprises.org if I can answer any questions.

Sincerely,

Byron Farnsworth Jr.
VP, Engineering and Operations/COO

cc: Pennsylvania Office of Consumer Advocate
Pennsylvania Office of Small Business Advocate
Dan Searfoorce (via email)
Dave Washko (via email)

Wellsboro Electric Company

Annual Electric Service Reliability Report
2018

Prepared by Byron Farnsworth Jr.
VP, Engineering & Operations/COO
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5/1/2019

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

Wellsboro Electric Company experienced increases in reliability indices during 2018. Weather events throughout the year played a significant part in the increase. The Company experienced outages from spring wind, summer thunderstorms and heavy rain/wind events from August through the end of 2018. The Company will continue trimming a circuit or a portion of a circuit each year and then identifying hot spot trimming on 3 phase lines on the system. Danger trees are identified In and Out of ROW during the year and urgent removals are dealt with immediately and other Danger trees are cut as funding is available.

The Company purchased all remaining AMI meters in Dec 2018 and began installing them with an anticipated completion during 2Q2019. Voltage conversions were begun in 2018 and are expected to be completed in late 2019. These conversions are converting 4Kv to 12Kv and will move all circuits in Wellsboro to the newer substation and provide more opportunities for installing tie-points in the future. A GIS Asset Verification Project was completed during the 4Q2018 that has greatly improved OMS information. SCADA upgrades were begun in 2018 with an expected implementation during the 3Q2019.

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 maintain a 7- year trimming cycle and the Boro is inspected annually to help identify unexpected "hot spots." Based on a bid the winning bidder trims the 60 miles by the end of the 3rd quarter.	2 Years – Visual 7 Years – Trimming
Visual Line Inspection	2 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.	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	Airswitches, 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 and treated at the ground line. External and/or internal decay inhibitors are applied where appropriate.	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	OCR counters recording faults are read and every 3 years hydraulic reclosers are removed from service and replaced with new/refurbished units. Regulators are visually inspected monthly	Monthly - Regulators Annually – OCR's

§ 57.195(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 to avoid or minimize the impact of similar events in the future.

Date	Time	Duration of Event (Minutes)	#of Customers Affected	Cause
7/22/2018	5:35 AM	253	6,433	Penelec had a tree fall onto the 34.5Kv feed to WECO. This resulted in the entire WECO system losing supply.
12/2/2018	8:53 AM	262	947	Penelec had a post style insulator on their 34.5Kv system where we are underbuilt. The resulting fault on Penelec's system caused one phase of their 34.5Kv to drop onto WECO's 12Kv system burning taps off upstream of the fault and the fault broke a crossarm on our 3 phase. Customers were sectionalized and the final group was left out until Penelec completed their repairs.

§ 57.195(b)(3) A table showing the actual values of each of the reliability indices (SAIFI, CAIDI, SAIDI, and if available, MAIFI) for the EDC'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.

Year	SAIFI	SAIDI	CAIDI	Avg # of Customers Served	# of Interruptions	# of Customers Interrupted	Customer Interruption Minutes
2018	1.43	191	134	6,337	397	8,651	1,158,754
2017	1.08	97	90	6,321	197	6,751	297,659
2016	1.84	172	94	6,308	217	10,138	1,086,523

§ 57.195(b)(4) A breakdown and analysis of outage causes during the year being reported on, 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 Cause	Number of Interruptions	% of Interruptions	Number of Customers Affected	Customer Interruption Minutes
Animal	76	17.2	1486	144,222
Vehicle	2	0.5	122	31,499
Decay	1	0.2	10	11,650
Elec Overload	1	0.2	5	164
Equipt Failure	40	9.0	1503	144,554
Fire	1	0.2	17	4,239
Lightning	5	1.1	7	254
Customer Caused	21	4.8	340	27,864
Planned	17	3.8	171	24,076
Public Contact	7	1.6	165	51,253
Tree, On, R.O.W.	80	18.1	2240	390,631
Tree, Off R.O.W.	48	10.9	1950	261,911
Unknown	123	27.8	974	110,247
Wind	5	1.1	109	6,675
Total	**442**	**100**	**9162**	**1,210,694**

As discussed on page one, the Company experienced an increase in outages caused by large amounts of rain and wind from July-Dec 2018. We sustained two excludable outages in 2018 (due to Supplier issues). Many of the outages occurred during a particularly stormy period from July-Dec 2018 when large amounts of rain and wind moved through the area.

Major outages occurred on July 22, 2018 affecting 6,433 customers (entire system due to tree contact on the Penelec 34.5Kv feed to Wellsboro) and on Dec 1st, 2018 affecting 947 customer (due to a Penelec 34.5Kv insulator faulting and then burning a phase down on the Wellsboro underbuild causing structural damage on Wellsboro's system.).

The Company continues to build its system to standards that typically exceed the NESC requirements and we're talking with other companies about best-practices regarding storm hardening . The Company is reviewing off right-of-way trees and the outages they cause to identify areas that require additional trimming. We'll be working with property owners to secure permission for removal of any target trees identified.

§ 57.195(b)(6) A comparison of established transmission and distribution inspection and maintenance goals/objectives versus actual results achieved during the year being reported on. Explanations of any variances shall be included.

Program	Goal	Completed	Comment
Infrared Inspection	Substation and any overhead lines that require an inspection	100%	All planned areas were inspected.
Vegetation Management	60 miles	100%	42 miles trimmed on Dresser Ckt.
Visual Line Inspection	4 circuits	100%	4 circuits inspected.
Padmount Equipment Inspection	84	100%	84 locations inspected
Line Equipment Inspection	23 reclosers 18 regulators	100%	23 recloser and 18 regulator locations inspected.
Pole Inspection	1492	100%	1492 poles inspected.
Reject Pole Replacement	135	100% of WECO Owned poles	130 reject poles replaced. 5 poles remain that are owned by Frontier Communications.
Substation Equipment Inspection	12 Monthly Inspections	100%	12 inspections completed.
Regulator/OCR Maintenance	2 Regulators 10 Reclosers	100%	Completed maintenance on 12 units.

§ 57.195(b)(7) A comparison of budgeted versus actual transmission and distribution operation and maintenance expenses for the year being reported on in total and detailed by the EDC's own functional account code or FERC account code as available. Explanations of any variances 10% or greater shall be included.

Program	Budget $	Actual $	Comment
Infrared Inspection	0	0	Not budgeted individually. 100% completed.
Vegetation Management	300,000	263,401	Bid costs continue to escalate year over year. This has caused the Actuals to come in higher than what was budgeted. The awarded trimmer was late getting in to trim our bid work. This did not allow time for many Danger trees or hot spot trimming to occur.
Visual Line Inspection	0	0	Not budgeted individually. 100% completed.
Padmount Equipment Inspection	0	0	Not budgeted individually. 100% completed.
Line Equipment Inspection	0	0	Not budgeted individually. 100% completed.
Pole Inspection	18,000	12,069	100% completed.
Substation Equipment Inspection	0	0	Not budgeted individually. 100% completed.
Regulator/OCR Maintenance	12,000	10,153	100% completed.
Total	330,000	285,623	

57.195(b)(8) A comparison of budgeted versus actual transmission and distribution capital expenditures for the year being reported on in total and detailed by the EDC's own functional account code or FERC account code as available. Explanations of any variances 10% or greater shall be included.

Project	Budget Amount $	Actual Expenditures $	Variance $	Comment
General Construction and Red Tag replacements	658,000	697,751	39,751	Additional red tag poles were identified in ROW's that increased costs and a track machine was needed due to wetter than normal conditions.
Transformers	30,000	35,360	5,360	2018 had a few more service hookups that required transformer installs.
Meters	220,000	168,549	-51,451	The Company continued its accelerated mechanical meter replacement program. The 2018 purchases marked the final AMI meter purchases (860) that are being installed during the 1Q2019 and 2Q2019.
GIS Project – Asset verification	117,432	112,835	-4,597	The GIS Asset verification Project catalogued all xfmr's, pole attachments and pole locations in our system. This has greatly improved our OMS reporting.
Vehicle Purchases – Small trucks	0	64,695	64,695	2 pickups were purchased to keep us on pace to cycle vehicles periodically and minimizing maintenance costs as a vehicle ages.
Substation SCADA and Driveway work	26,823	25,333	-1,490	Controller boards were upgraded in preparation of launching SCADA in 2019.
PennDOT – RT 6 Road Project	12,000	15,127	3,127	

Middlebury – Ives Run Park (UG replacement)	9,000	10,430	1,430	
Stony Fork Voltage conversion	30,000	33,781	3,781	Stray voltage and low voltage were identified and a conversion from 4Kv to 12Kv was started in the Fall 2018 and will be completed in 1Q2019.
Reese Hill moved from ROW to on-road access	20,000	22,447	2,447	A remote ROW had significant failures identified during the red tag process. 6 new poles were installed and we were able to retire 15 poles. Retirement will be concluded in 1Q2019.
East/West Main Voltage conversion	190,000	104,673	-85,327	This voltage conversion Project moved customers from a very old 4Kv substation to 12Kv fed out of the newer substation. The new feed out of the substation will require a contractor to complete during Jan 2019.
Total	1,313,255	1,290,981	-22,274	

§ 57.195(b)(9) Quantified transmission and distribution inspection and maintenance goals/objectives for the current calendar year detailed by system area (that is, transmission, substation and distribution).

Program	Goal
Infrared Inspection	Substation and junction poles on 4 circuits having line inspections.
Vegetation Management	Roughly half of our Stony Fork circuit (53 miles)
Visual Line Inspection	4 circuits
Padmount Equipment Inspection	74 Locations
Line Equipment Inspection	41 Locations
Pole Inspection	1600 Poles
Reject Poles	Roughly 14% of poles inspected failed
Substation Equipment Inspection	12 Monthly Inspections
Regulator/OCR Maintenance	10 reclosers

All goals are in the substation and distribution areas. The Company does not own or operate any transmission facilities.

§ 57.195(b)(10) Budgeted transmission and distribution operation and maintenance expenses for the current year in total and detailed by the EDC's own functional account code or FERC account code as available.

(These items are not budgeted by FERC account.)

Program	Budget $	Comment
Infrared Inspection	N/A	Not budgeted individually
Vegetation Management	$370,000	Covers normal trimming from bid and Danger tree removals.
Visual Line Inspection	N/A	Not budgeted individually
Padmount Transformer Inspection	N/A	Not budgeted individually
Line Equipment Inspection	N/A	Not budgeted individually
Pole Inspection	$13,000	External company that tests roughly 1600 poles/year
Reject Poles	$550,000	There are 225 poles that failed in 2018 that require replacement in 2019.
Substation Equipment Inspection	N/A	Not budgeted individually
Regulator/OCR Maintenance	6,000	
Total		

§ 57.195(b)(11) Budgeted transmission and distribution capital expenditures for the current year in total and detailed by the EDC's own functional account code or FERC account code as available.

(These items are not budgeted by FERC account.)

Project	Budget Amount $
General Construction	855,000
Transformers	80,000
Meters	6,000
Roundtop relocate	60,000
Austin St. Voltage conversion	175,000
Vehicles	245,000
Total	$1,421,000

§ 57.195(b)(12) Significant changes, if any, to the transmission and distribution inspection and maintenance programs previously submitted to the Commission.

No significant changes.