



# Reliability Enhancement Program and Vegetation Management Program

CY2020 REP/VMP Report

March 15, 2021





## I. Introduction

Liberty Utilities (Granite State Electric) Corp. ("Liberty" or "the Company") hereby submits the results of the Reliability Enhancement Plan ("REP") and Vegetation Management Plan ("VMP") for the calendar year 2020 ("CY2020"). These results for the CY2020 Plan are submitted consistent with the requirements in Attachment F to the Settlement Agreement in Docket No. DE 13-063 that was approved by Commission Order No. 25,638 (March 17, 2014), as amended by the Settlement Agreement in Docket No. DE 16-383 that was approved by Order No. 26,005 (April 12, 2017), and that was further amended by the Settlement Agreement in Docket No. DE 19-064 that was approved in Order No. 26,376 (June 30, 2020) (together, the "Settlement Agreement"). This report contains the following information:

1. A comparison of actual to budgeted spending on operating and maintenance ("O&M") activities related to the VMP in CY2020. Appendix 1, line 12, column (b), shows that total actual O&M spending that occurred during 2020 was \$2,461,057 with a request to recover a total of \$2,420,000, made up of base spending \$2,200,000, plus ten percent above as approved in Docket No. DE 19-064;
2. A comparison of actual investment to budgeted spending on capital projects for REP in CY2020. Appendix 2, line 6, column (c) shows that the total capital investment recorded on Liberty's books in CY2020 was \$1,566,370, with a request to recover \$213,246 in revenue requirement associated with 2020 capital investment, as provided in the testimony of David Simek and Adam Hall;
3. A summary of reliability performance for CY2020.

The Company is submitting the joint testimony of Heather Green, Joel Rivera, and Anthony Strabone, which provides further information regarding the Company's actual O&M cost and capital investment made during CY2020. In addition, the joint testimony of David Simek and Adam Hall addresses the Company's request for a net increase in distribution rates associated with the REP/VMP Adjustment Provision and the REP Capital Investment Allowance described above, and includes typical bill impacts.

### Section 1: CY2020 O&M Budget vs. Actual O&M Expenses for VMP

The proposed operating and maintenance ("O&M") budget for VMP activities for CY2020 is shown in Appendix 1, line 12, column (a).

The Company initially proposed in Docket No. DE 19-064 the options of continuing a 4-year or returning to a 5-year cycle. However, the Consolidated Communications, Inc. ("CCI")



reimbursements had to be excluded from the total amount of VMP O&M expenses to be recovered because CCI exercised its contractual option to not participate in the vegetation management aspect of the Joint Ownership Agreement after 2019, resulting in the Company taking on all the costs of vegetation activities annually of the VMP expense budget of \$2,449,556 as shown in Appendix 1, line 14.

The rate case was settled after the budget was proposed. The rate case allowed for a total spend of \$2,200,000 with a 10% variance, or a total allowance of \$2,420,000. Liberty requested to move to a 5-year cycle to accommodate the cap on spending. As part of the Settlement Agreement, parties agreed the Company would continue with the 4-year trim cycle, but with the aforementioned budget. As the ability to bill Consolidated was no longer available and the rate case provided this new budget, the Company adjusted its budget and spending to align with the new figure. The actual spending for CY2020 was \$2,461,057.

As shown in Appendix 1, line 14, column (b), the Company's actual total spending level for CY2020 was \$2,461,057 for O&M activities related to the VMP, or \$11,501 more than the filed budgeted amount of \$2,449,556. Budget variances related to the total CY2020 VMP O&M spending are described below. In addition to Appendix 1, which shows total O&M expenses, Appendix 5 shows the actual VMP O&M expenses by month, while Appendix 4 contains the work plan of completed VMP O&M activities by feeder.

As described above, the Company revised its budget and spending during 2020 to more closely align with the spending levels arrived in the DE 19-064 Settlement Agreement. Some of the spending variances are described below:

The Company spent \$3,926 more on work planning than anticipated. The Company brought in an additional work planner for a few weeks to catch up on work planning and the Company also enhanced the new software program to better manage the workflow process.

Spot tree trimming was under spent \$7,490 due to deferring requested work of electric service orders and customer calls.

The trouble and restoration budget is for unplanned work based on actual occurrence. Spending exceeded the budget by \$36,491 due to an increase in unplanned non-storm related trouble call volume and support of the overhead line department. The Company encountered an increased amount of actively failing or urgent off cycle work requested by customers.

The Company spent \$55,123 more on planned cycle pruning due to the 8LI delayed work in relation to the railroad permitting and additional operational costs for new work management program which includes the costs for tablets, licenses, and training.



The Company spent \$52,040 less than anticipated for traffic control. The areas the Company trimmed in 2020 required less detail than would be the case if the Company were trimming in the more urban areas and less miles were worked as some miles were deferred.

The Company spent \$10,947 more than budgeted on hazard tree removals due to the quality and quantity of high risk trees that could not be deferred. .

Interim trimming is generally unplanned work. The Company overspent by \$9,552.

Tree planting came in at the budget of \$0 as we cancelled our Arbor Day celebrations due to COVID-19.

Sub-Transmission Right of Way sideline work was underspent by \$45,008. Fewer removals were performed than were estimated. The plan to work the remainder of the 2376W circuit has been pushed further to 2021 due to difficulty with an abutter.

## **Section 2: CY2020 Capital Budget vs. Actual Capital Investment for REP**

The proposed capital investment budget for REP activities for 2020 is shown in Appendix 2, line 6, column (b). For the calendar year 2020, Liberty proposed to spend \$1,600,000 on capital investments related to REP activities, including \$100,000 related to CY2019 carryover work (Appendix 2, line 5, column (b)). The carryover work will be included in the Company's 2021 Step Adjustment filing due April 6, 2021. As discussed with Commission Staff, the capital budget included replacement of 4 miles of bare primary conductors with spacer cable in tree outage prone areas where it is too costly to rely on vegetation management practices alone to mitigate feeder lockouts. The application of spacer cable, a covered conductor that is resistant to tree related outages, significantly improves mainline circuit performance during windy and stormy conditions, and affords protection against incidental tree-conductor contact at the end of the trim cycle and contact resulting from branches falling from above or outside the trim zone.

Details of the REP capital investment projects and costs are included in Appendix 3.

As shown on line 4, column (c) of Appendix 2, the Company's total spending for CY2020 was \$1,566,370 for 2020 capital activities related to REP, or \$66,370 more than the filed budgeted amount for those projects of \$1,500,000.

Additional details of the variance in each of the CY2020 REP projects are provided below:



**Bare Conductor Replacement:**

As shown in Appendix 2, line 1, column (c), CY2020 capital expenditures incurred for Bare Conductor Replacement amounted to \$1,566,370, or \$66,370 more than the proposed target of \$1,500,000.

Originally, there were two bare wire replacement projects planned in 2020. The first project targeted replacement of bare wires along Bridge Street and Wheeler Avenue in the town of Salem. As shown in Appendix 3, line 1, column (e), CY2020 capital expenditures incurred for Bridge Street and Wheeler Avenue amounted to \$933,795, or \$433,795 more than the proposed budget of \$500,000. Key factors contributing to the difference between the budgeted amount and the actual capital investment are (1) the changes in actual versus estimated costs as site specific requirements were determined by engineering, and (2) by bid prices being higher than expected which resulted in a higher than forecasted investment.

The second project targeted replacement of bare wires along Nashua Road, Burns Road, and Mammoth Road in the town of Pelham, for which the company budgeted \$1,000,000. In order to mitigate the higher than expected investment for the Bridge Street project in Salem, the Company decided to replace 1.3 miles of bare wires along Nashua Road and defer replacing 1.5 miles of bare wires along Burns Road and Mammoth Road until 2021. As shown in Appendix 3, line 2, column (e), this amounted to \$632,575, or \$367,425 less than the proposed budget of \$1,000,000.

**Section 3: Reliability Results – Calendar Year 2020**

Consistent with Attachment F, Section VII.b, of the Settlement Agreement, reliability metrics for CY2020 are presented in the table below based on both the PUC Standard<sup>1</sup> for excluding major weather events and the IEEE Standard 1366<sup>2</sup> method for excluding major event days. The metrics also exclude transmission supply outages, planned or notified outages, and all other

<sup>1</sup> PUC Major Storm: [(CI >= 15 % of Customers Served and 30 concurrent events) or (45 concurrent events)], Using PUC criteria, two days were excluded in Calendar Year 2020: August 4 and August 5.

<sup>2</sup> IEEE Major Event Days: Using IEEE criteria, three days were excluded in Calendar Year 2020: August 4, August 5 and September 30.



- 1 applicable exclusions<sup>3</sup>. The metrics include customers interrupted (“CI”), customer minutes  
2 interrupted (“CMI”), system average interruption frequency index (“SAIFI”), system average  
3 interruption duration index (“SAIDI”), customer average interruption duration index (CAIDI), and  
4 customers interrupted per interruption index (CIII).

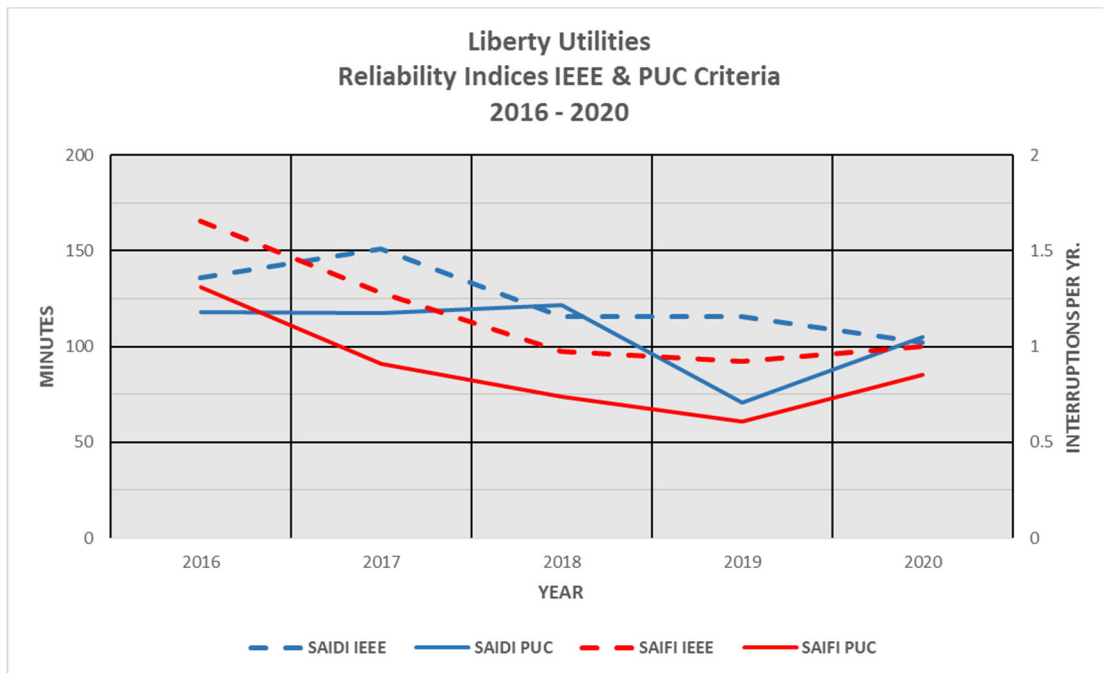
No Exclusions								
Year	Events	Customers Interrupted	Customer Minutes Interrupted	Customers Served	SAIFI	SAIDI	CAIDI	CIII
2020	701	53,471	6,857,241	45,192	1.1830	151.500	128.24	76.28
Excludes Only IEEE Major Events								
Year	Events	Customers Interrupted	Customer Minutes Interrupted	Customers Served	SAIFI	SAIDI	CAIDI	CIII
2020	605	44,923	4,554,679	45,192	0.9950	100.866	101.39	74.25
Excludes Only PUC Major Events								
Year	Events	Customers Interrupted	Customer Minutes Interrupted	Customers Served	SAIFI	SAIDI	CAIDI	CIII
2020	634	48,722	5,307,841	45,192	1.0786	117.428	108.94	76.85
Excludes Only Loss of Supply by Other Utility or Transmission Outage								
Year	Events	Customers Interrupted	Customer Minutes Interrupted	Customers Served	SAIFI	SAIDI	CAIDI	CIII
2020	698	46,639	6,489,141	45,224	1.0311	143.318	139.14	66.82
Excludes Only Planned Maintenance								
Year	Events	Customers Interrupted	Customer Minutes Interrupted	Customers Served	SAIFI	SAIDI	CAIDI	CIII
2020	629	52,352	6,789,881	45,192	1.1583	150.010	129.70	83.23
All Exclusions: IEEE Major Events, loss of supply, transmission, planned maintenance, Load Shedding, Single Customer Outages, Fire/Police Request								
Year	Events	Customers Interrupted	Customer Minutes Interrupted	Customers Served	SAIFI	SAIDI	CAIDI	CIII
2020	430	34,834	3,983,415	45,192	0.7713	88.1967	114.35	81.01
All Exclusions: PUC MEDs, loss of supply, transmission, planned maintenance, Load Shedding, Single Customer Outages, Fire/Police Request								
Year	Events	Customers Interrupted	Customer Minutes Interrupted	Customers Served	SAIFI	SAIDI	CAIDI	CIII
2020	454	38,628	4,736,058	45,192	0.8548	104.747	122.61	85.08

5

- 3 Events that are excluded are those involving loss of supply from another utility, customer-owned facilities, fire or police emergencies, load shedding, planned maintenance, events whose duration was 5 minutes or less and/or events which involve only one customer.



The Company's historical reliability performance for the time period from 2016 to 2020 is outlined in the chart below. This chart displays annual SAIDI and SAIFI performance using IEEE-1366 and PUC criteria.



In terms of SAIDI, the reliability performance for the Company in 2020 (based on IEEE-1366) was the best performance in the last five years. The SAIDI performance of 100.87 minutes in 2020 is lower than the five-year average of 124.2 minutes.

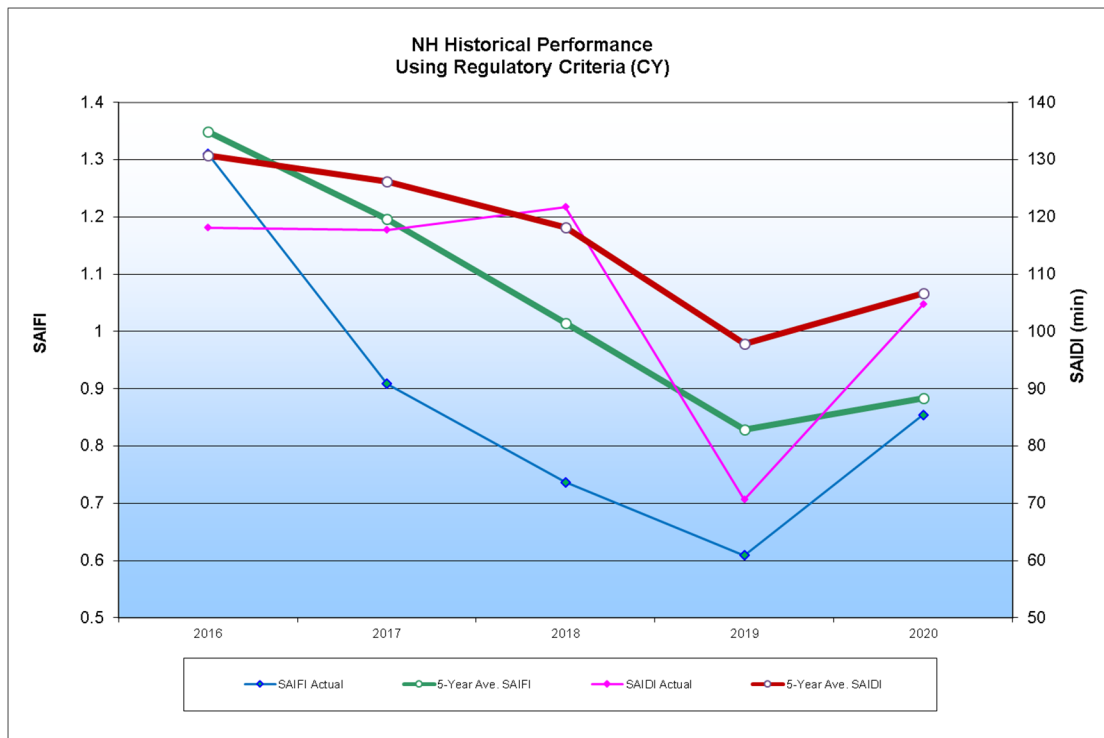
In terms of SAIFI, the reliability performance for the Company in 2020 (based on IEEE-1366) was the third best performance in the last five years. The SAIFI performance of 1.0 is lower than the five-year average of 1.16 minutes.

In 2020, there were three events that met the IEEE-1366 criteria for a Major Event Day.

As shown on the NH Historical Performance chart below (based on PUC criteria), the SAIFI performance of 0.85 and the SAIDI performance of 104.7 for CY2020 continue on an improving, downward trend, with the 2020 SAIFI and SAIDI results being the second best and third best respectively in five years. In summary, in 2020 the Company did not meet its SAIFI and SAIDI targets of 0.829 and 97.88 minutes, respectively, which are based on a five-year rolling average and are shown in Appendix 7 and the table below. The Company met its SAIDI and SAIFI targets for five consecutive years (2014–2019). Liberty expects this overall positive performance in SAIFI and SAIDI to continue as further positive impacts from our reliability and vegetation management initiatives are experienced.

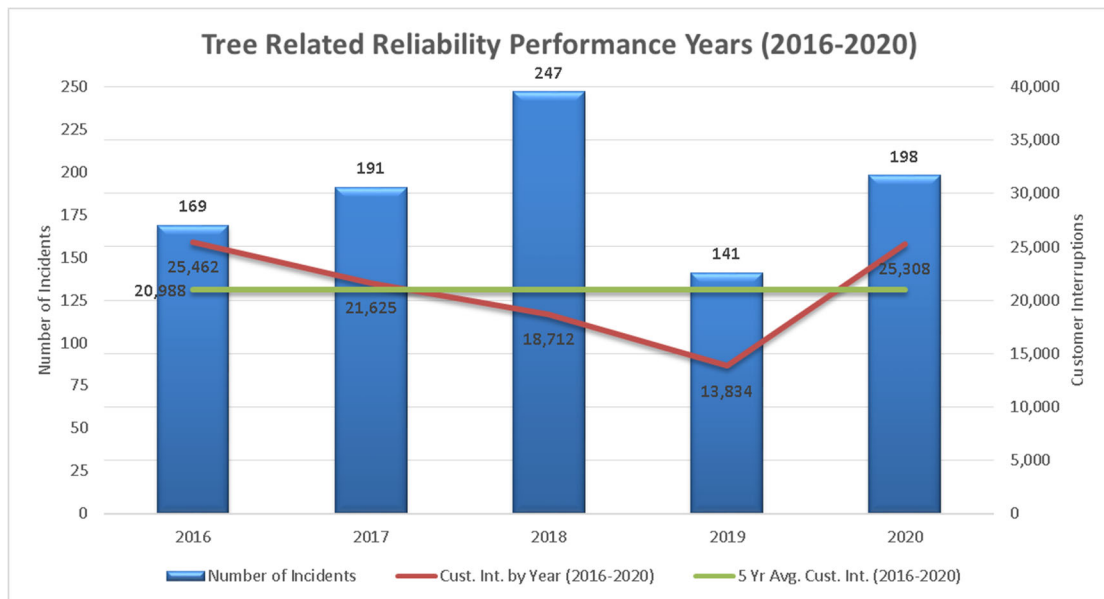






1

2 The tree related reliability performance for the Company was reviewed using NH PUC criteria.  
 3 The chart below displays the number of tree related incidents per year and the number of  
 4 customers interrupted from tree related incidents from 2016 to 2020. For comparison the five-  
 5 year average of number of customers interrupted from tree related incidents is also shown.



6



- 1 The chart above shows the Company's tree related reliability performance between 2016 and
- 2 2020. The customers interrupted show a declining trend in the number of customers
- 3 interrupted from 2016 through 2019 and an increase in 2020. The number of tree related events
- 4 increased from 2015 through 2018 and again in 2020.



**Appendix 1 - O&M Expenses**

Line	(a) CY 2020 Adjusted Budget Expenses	(b) CY 2020 Actual Expenses	(c) Variance	(d) Reference	(e) CY 2020 Variance Actual vs. Budget
1 <b>VMP O&amp;M</b>					
2 Work Planners for Veg Plan	\$ 205,000	\$ 208,926	\$ 3,926	Appendix 4	<p>We deferred requests unless urgent.</p> <p>Includes a higher volume of unplanned trouble response/line department support.</p> <p>Includes work delayed on 8L1 for RR permit delays and transition to new work program.</p> <p>We deferred miles and therefore deferred traffic control.</p> <p>At the time budget was adjusted, we had spent \$100,000. The additional \$11,000 were tree removals that could not be deferred.</p> <p>At the time budget was adjusted, we attempted to reduce budget to zero. However, we found a portion of the 11L2 that could not be deferred.</p> <p>-</p> <p>We reduced amount of tree removals to accommodate needs in other portion of the budget. Also 2373W delayed.</p>
3 Spot Tree Trimming	\$ 30,000	\$ 22,510	\$ (7,490)	Appendix 4	
4 Trouble and Restoration Maintenance	\$ 30,000	\$ 66,491	\$ 36,491	Appendix 4	
5 Planned Cycle Trimming	\$ 1,505,556	\$ 1,560,679	\$ 55,123	Appendix 4	
6 Police Detail Expenses - Cycle Trimming & Other	\$ 320,000	\$ 267,960	\$ (52,040)	Appendix 4	
7 Hazard Tree Removal	\$ 100,000	\$ 110,947	\$ 10,947	Appendix 4	
8 Interim Trimming	\$ -	\$ 9,552	\$ 9,552	Appendix 4	
9 Tree Planting	\$ -	\$ -	\$ -	Appendix 4	
10 Sub-Transmission Right of Way Clearing	\$ 259,000	\$ 213,992	\$ (45,008)	Appendix 4	
11 Sub-Transmission Right of Way Sideline	\$ -	\$ -		Appendix 4	
12 Total VMP O&M Expenses	\$ 2,449,556	\$ 2,461,057	\$ 11,501		
13 Less: Reimbursements from Consolidated	\$ -	\$ -	\$ -		
14 VMP O&M Expenses Net of Consolidated Credits	\$ 2,449,556	\$ 2,461,057	\$ 11,501		

**Appendix 2 - REP Capital Investments - Summary**

Line	Projects	(a) 2020 Goal	(b) CY 2020 Capital Investment Budget(*)	(c) CY 2020 Actual Capital Investment	(d) CY 2019 Capital Carryover Investment	Reference
1	Bare Conductor Replacement	4 mi	\$ 1,500,000	\$ 1,566,370	\$ -	Appendix 3, line 1&2
2	Single Phase Reclosing Installations	None	\$ -	\$ -	\$ -	
3	Single Phase Fuse Saver Installations	None	\$ -	\$ -	\$ -	
4	Calendar Year 2020 Totals		\$ 1,500,000	\$ 1,566,370		Appendix 3, line 5
5	Previous CY Carryover		\$ 100,000		\$ -	Appendix 3, line 4
6	Totals		\$ 1,600,000	\$ 1,566,370	\$ -	
7					\$ -	

(\*) From CY 2020 Plan submitted to Staff on November 15, 2019.

**Appendix 3 - Reliability Enhancement Program Capital Costs**

Line	(a) Activities	(b) Project Description	(c) Work Order	(d) CY 2020 Budgeted Capital Investment (107)*	(e) CY 2020 Capital Investment Closed to Plant (101/106/108)	(f) CY 2020 Total
1	13L3 Bridge St Salem Bare Conductor Replacement	Replace approximately 1.2 miles of bare conductors along Bridge St Salem	301946-01003	\$ 500,000	\$ 933,795	\$ 933,795
2	14L2 Nashua Rd Pelham Bare Conductor Replacement	Replace approximately 1.3 miles of bare conductors along Nashua Rd Pelham	302046-01002	\$ 1,000,000	\$ 632,575	\$ 632,575
3	14L2 Burns Rd-Mammoth Rd Pelham Bare Conductor Replacement	Replace approximately 1.5 miles of bare conductors along Burns Rd and Mammoth Rd Pelham	302046-01001		\$ -	\$ -
4	Capital Investment Carryover from previous CY			\$ 100,000		
5	Totals			\$ 1,600,000	\$ 1,566,370	\$ 1,566,370

(\*) From CY 2020 Plan submitted to Staff on November 15, 2019.

## Appendix 4 - O&M Expenses

### CY 2020 Vegetation Management Activities

CY 2020			
Line	Activities	Program Plan (*)	Reference
1	Spot Tree Trimming	As needed	See Appendix 6 for definitions
2	Trouble and Restoration Maintenance	As needed	See Appendix 6 for definitions
3	Planned Cycle Trimming	223.78	See Appendix 6 for definitions
4	Cycle Trimming Police Detail Expenses	As needed	See Appendix 6 for definitions
5	Hazard Tree Removal	As needed	See Appendix 6 for definitions
6	Enhanced Hazard Tree Removal	As needed	See Appendix 6 for definitions
7	Interim Trimming	As needed	See Appendix 6 for definitions
8	Tree Planting	As needed	See Appendix 6 for definitions
10	Other Police Detail Expenses	As needed	See Appendix 6 for definitions
11	Substation	Feeder	OH Miles - Distribution
12	Craft Hill #11	11L1	14.66
13	Slayton Hill #39	39L2	30.31
15	Hanover #6	6L2	4.06
16	Enfield #7	7L1	78.41
17	Spicket River #13	13L3	0.00
18	Pelham #14	14L2	35.39
20	Salem Depot #9	9L1	10.40
22	Salem Depot #9	9L2	1.36
23	Salem Depot #9	9L3	15.04
24	Michael Ave #40	40L3	4.5
25	Total OH Miles - Distribution		194.13
26	Sub transmission	OH Miles - Sub transmission	
32	BARRON AVE. #10/SALEM DEPOT #9	2352	3.15 Miles/ 30.13 Acres
33	BARRON AVE. #10	2393	.89 Miles/ 6.57 Acres
35	HANOVER #6/MT. SUPPORT #16/LEB #1*	1303/1304	3.15 Miles (6.3 Total)
27	Total OH Miles - Sub transmission		7.19 mi/36.7 acres

\* Portion completed in 2019

**Appendix 5 - VMP Spend by Month**

<b>VM Only Jobs</b>	<b>GL Posting Month</b>												
<b>Job</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Grand Total</b>
VM1000	\$ 14,400.36	\$ 14,782.58	\$ 34,307.52	\$ 11,366.58	\$ 14,195.18	\$ 13,652.36	\$ 17,928.79	\$ 15,243.59	\$ 12,417.53	\$ 12,551.20	\$ 2,525.35	\$ 45,554.70	\$ 208,925.74
VM1010	1,296.83	(547.79)	1,100.66	1,459.41	1,114.38	2,525.93	2,626.97	5,133.18	(862.46)	3,712.23	2,482.89	2,467.45	22,509.68
VM1210	3,673.71	7,536.78	(4,012.63)	5,087.72	2,419.50	7,203.54	1,538.88	13,379.86	9,702.48	3,623.16	7,531.09	8,806.94	66,491.03
VM1215	156,987.30	(23,766.75)	103,912.82	181,026.33	122,787.97	117,812.79	99,878.68	107,325.65	118,572.29	228,348.48	304,258.75	43,535.14	1,560,679.45
VM1218	63,063.00	(43,997.00)	(41,807.26)	100,104.50	65,094.00	(15,695.00)	21,990.00	10,160.00	52,872.70	14,345.00	21,295.00	20,535.00	267,959.94
VM1220	51,131.02	(32,490.94)	31,752.45	29,167.58	23,564.53	(3,404.85)	11,227.14						110,946.93
VM1235								6,016.34	8,598.93	(5,063.04)			9,552.23
VM1280	68,290.90	(63,301.50)		7,891.66	12,599.14	670.16	57,766.52	45,479.38	50.00	-	3,147.48	81,398.08	213,991.82
<b>Grand Total</b>	<b>\$ 358,843.12</b>	<b>\$ (141,784.62)</b>	<b>\$ 125,253.56</b>	<b>\$ 336,103.78</b>	<b>\$ 241,774.70</b>	<b>\$ 122,764.93</b>	<b>\$ 212,956.98</b>	<b>\$ 202,738.00</b>	<b>\$ 201,351.47</b>	<b>\$ 257,517.03</b>	<b>\$ 341,240.56</b>	<b>\$ 202,297.31</b>	<b>\$ 2,461,056.82</b>

Includes 2020 charges paid in 2020 and December 2020 accruals for 2020 charges not yet paid

## **Appendix 6 - VMP O&M Definitions**

**Inspection and Maintenance:** The inspection and maintenance component of the REP involves a comprehensive overhead assessment of the Company's equipment and feeders prior to performance of the REP work.

**Augmented Tree-Trimming and Clearing:** This program involves the removal of hazard trees and limbs beyond what is normally included in tree trimming to reduce the risk of interruptions on the overhead distribution system. In addition to removing dead, dying, and damaged limbs from above the conductor, we also increase overhead clearances to fifteen feet outside of residential areas. This additional work is integrated into routine scheduled trimming program to create a more aggressive approach to removing tree hazards and overhang.

**Spot Tree Trimming:** This captures all charges for field follow up, review and execution of corrective action required, if any, to mitigate vegetation management concerns requested or reported by a customer.

**Trouble and Restoration Maintenance:** This captures all charges for response and corrective action to mitigate isolated tree related trouble, overhead line requests to mitigate tree related trouble and storm responses not covered by a storm specific charge number.

**Planned Cycle Trimming:** This captures all charges for annual fiscal year planned cycle pruning activities but does not include police detail expenses.

**Cycle Trimming Police Detail Expenses:** This captures all charges for police detail expenses associated with annual planned cycle trim and tree removals.

**Tree Hazard Removal:** This captures all charges for removal of dead, dying and/or structurally weak trees, limbs and leads.

**Enhanced Hazard Tree Removal –EHTM:** This captures all charges for the hazard tree removal program directed at improving reliability of on and off cycle poor performing circuits based on removing dead, dying and/or structurally weak trees, limbs and leads on the three phase portions of those targeted circuits using a Customer Served approach beyond each major reliability device point including the lockout section or station breaker to the first reliability device.

**Interim Trimming:** This captures all charges for mitigation of tree conditions that threaten reliability of one or more sections of primary conductor on a circuit or circuits not contained in the current fiscal year's annual plan of work.

**Tree Planting:** This captures all charges for tree replacements in exchange for tree removals of full clearance, tree replacement to remediate property owner complaints, trees planted for Arbor Day events.



**Sub-transmission Right of Way Clearing:** This captures all charges for activities related to cutting, clearing, herbicide application and danger tree removal on substation supply lines up to 46 kV.

**Other Police Detail Expenses:** This captures charges for all O&M police detail expenses not associated with Planned Cycle Trim.

**Appendix 7 - 5 year rolling averages SAIDI/SAIFI**

<b>CY</b>	<b>Sum of CI</b>	<b>Sum of CMI</b>	<b>Sum of SAIFI (right)</b>	<b>5-Year Avg. SAIFI (right)</b>	<b>Sum of SAIDI (left)</b>	<b>5-Year Avg. SAIDI (left)</b>
2000	75,896	4,079,729	2.00		107.76	
2001	85,017	8,219,366	2.22		214.39	
2002	65,099	6,042,438	1.68		155.28	
2003	56,341	3,971,111	1.43		100.86	
2004	67,956	8,313,277	1.71	1.81	207.53	157.16
2005	84,188	12,085,278	2.08	1.82	301.25	195.86
2006	106,935	10,363,197	2.70	1.92	263.83	205.75
2007	79,070	9,196,797	1.96	1.98	228.36	220.37
2008	93,197	8,609,475	2.30	2.15	212.05	242.60
2009	47,270	4,763,099	1.17	2.04	115.94	224.29
2010	72,089	8,156,936	1.74	1.97	196.44	203.32
2011	49,176	4,997,759	1.17	1.67	119.60	174.48
2012	69,677	5,829,537	1.70	1.62	140.06	156.82
2013	68,033	6,792,013	1.64	1.48	162.28	146.86
2014	63,878	7,145,798	1.54	1.56	172.12	158.10
2015	24,893	2,618,074	0.58	1.33	61.05	131.02
2016	56,784	5,124,815	1.31	1.35	118.14	130.73
2017	39,831	5,156,572	0.91	1.19	117.74	126.27
2018	32,681	5,406,674	0.74	1.01	121.79	118.17
2019	27,269	3,161,319	0.61	0.83	70.66	97.88
2020	38,628	4,736,058	0.85	0.88	104.75	106.61
2021 Projection	39,039	4,277,397	0.88	0.80	106.62	104.31