



**STATE OF NEW HAMPSHIRE
BEFORE THE
PUBLIC UTILITIES COMMISSION**

Docket No. DE 19-064

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
Distribution Service Rate Case

REBUTTAL TESTIMONY

OF

HEATHER GREEN,

JOEL RIVERA,

AND

HEATHER M. TEBBETTS

January 30, 2020

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1 **I. INTRODUCTION AND BACKGROUND**

2 **Q. Ms. Green, please introduce yourself.**

3 A. My name is Heather Green, my business address is 407 Miracle Mile, Lebanon, New
4 Hampshire, and I am employed by Liberty Utilities Service Corp. I am the Program
5 Manager of Inspections and Vegetation for Liberty Utilities (Granite State Electric) Corp.
6 ("Liberty" or "the Company"). In that capacity I plan, budget, and manage inspection
7 and vegetation management programs, vendor performance, and storm and regulatory
8 support on the Company's distribution and sub-transmission assets. Please see the Direct
9 Testimony of Heather Green and Heather M. Tebbetts, filed April 30, 2019, for a
10 description of my educational background and work experience.

11 **Q. Mr. Rivera, please introduce yourself.**

12 A. My name is Joel Rivera, my business address is 9 Lowell Road, Salem, New Hampshire,
13 and I am employed by Liberty Utilities Service Corp. I am the Manager of GIS and
14 Electric System Planning for Liberty. I am responsible for managing the Company's
15 electric system capacity, reliability, integrity, interconnections, protection systems,
16 equipment and system upgrades, prioritization, and associated budget estimates. Please
17 see the Direct Testimony of Joel Rivera, Anthony Strabone, and Heather M. Tebbetts,
18 filed April 30, 2019, for a description of my educational background and work
19 experience.

1 **Q. Ms. Tebbetts, please state your full name, business address, and position.**

2 A. My name is Heather M. Tebbetts, my business address is 15 Buttrick Road, Londonderry,
3 New Hampshire, and I am employed by Liberty Utilities Service Corp. I am Manager of
4 Rates and Regulatory Affairs and am responsible for providing rate-related services for
5 the Company. Please see the Direct Testimony of Joel Rivera, Anthony Strabone, and
6 Heather M. Tebbetts, filed April 30, 2019, for a description of my educational
7 background and work experience.

8 **II. PURPOSE OF TESTIMONY**

9 **Q. What is the purpose of your testimony?**

10 A. Our testimony is provided in rebuttal to the Staff witnesses Jay E. Dudley and Kurt
11 Demmer related to the topics of reliability enhancement program (REP) and the
12 vegetation management program (VMP), Staff's proposed non-substantive changes to the
13 Company's tariff, and the Company's request to insert into the tariff a table of the
14 Company's interconnection fees, similar to that of other utilities.

15 **III. RELIABILITY ENHANCEMENT PROGRAM**

16 **Q. Does Staff support continuing the REP?**

17 A. No, they do not. Staff recommended termination of the REP beyond 2020 because
18 Liberty has exceeded National Grid's pre-2005 reliability performance.¹ The Company
19 strongly disagrees with this recommendation and believes that the purpose of the REP is
20 to maintain or improve reliability for our customers, something that our customers

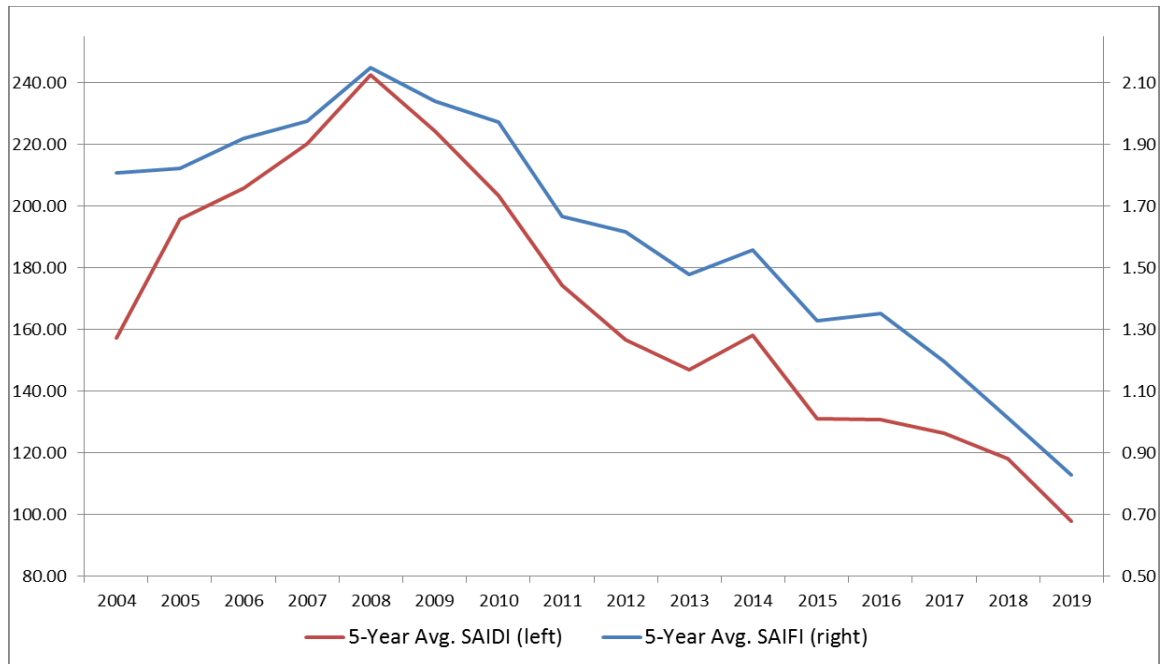
¹ Direct Testimony of Kurt Demmer, Bates Page 31, lines 10–16.

1 demand and expect. Staff's recommendation gives the impression that the Company's
2 reliability is "good enough," but the Company believes that efforts to maintain and
3 improve reliability are in customers' best interests.

4 **Q. Please summarize the reliability results for the Company as a result of its reliability**
5 **and vegetation initiatives.**

6 A. To illustrate the Company's reliability performance, the graph below shows Liberty's
7 five-year rolling average for SAIDI and SAIFI² between 2004 and 2019. At its worst, the
8 reliability performance of the Company in 2008 (four years prior to Liberty's purchase of
9 the utility) was 2.15 for SAIFI and 243 for SAIDI. Since then, the Company's reliability
10 performance has improved considerably. As of year-end 2019 the reliability performance
11 is 0.83 for SAIFI and 97.88 for SAIDI. This represents an improvement of
12 approximately 40% for both SAIDI and SAIFI, which marks the first time that the
13 Company's five-year rolling average is below 100 minutes for SAIDI and 1.0 for SAIFI.
14 It also marks the first time that the Company has met its reliability targets for both SAIDI
15 and SAIFI in five consecutive years (2015–2019). These reliability improvements and
16 results are mainly due to the Company's combined REP/VMP strategies and projects
17 developed to address system deficiencies as documented in the Company's Least Cost
18 Integrated Resource Plan.

² SAIDI is System Average Interruption Duration Index. SAIFI is System Average Interruption Frequency Index.



Q. Do you agree with Staff's recommendation to end the REP in 2020?

A. No, Liberty believes that this is premature. Given the success of the REP, and the uncertainty and existing challenges and delays with the Grid Modernization proceedings, Liberty recommends maintaining the REP at least over the short term. As part of the Grid Modernization proceedings, Liberty and other stakeholders can work together to determine the ultimate disposition of the REP as it pertains to a potential Integrated Distribution Plan.

Maintaining the REP program allows for a targeted and more accelerated replacement schedule by having funds earmarked for those investments. If the projects are not included as part of future REP planning, the annual rate of funding for the projects could be impacted by annual budgetary pressures from emergent projects and other delivery system needs.

1 **IV. VEGETATION MANAGEMENT PROGRAM**

2 **Q. What is Staff's position on the VMP?**

3 A. For background, in the Settlement Agreement in Docket No. DE 13-063, the Company
4 agreed to "provide its REP and VMP plan (the "Plan") to Staff the following calendar
5 year for Staff's review." The Plan is not filed formally, rather it is provided to Staff and
6 OCA informally to facilitate further discussions about the contents of the Plan.

7 The VMP currently includes an annual base amount in distribution rates of \$1,500,000,
8 which was never intended to be an annual budget amount. Although Staff acknowledges
9 that the \$1,500,000 is not sufficient for the Company's annual VMP requirements, Staff
10 only recommends \$178,000 more in annual funding, a figure that Mr. Demmer states the
11 Company submitted in its 2018 VMP budget filing. In fact, the costs submitted to Staff
12 on November 15, 2017, for the 2018 plan were \$1,851,000, see Attachment GRT-1 for
13 the details. After a meeting and further discussions where Staff disagreed with the
14 proposed budget, the Company revised its proposal downward, but Staff still disagreed
15 and argued that any further spending over \$1,500,000 was unnecessary. Thus the
16 Company went forward with its original spending as Staff agreement on the annual
17 budget is not a requirement. The final spending for the test year was \$1,944,301, or
18 \$93,301 more than proposed. As noted in Staff's testimony, \$46,569 of the additional
19 costs was the result of a 2017 invoice that was paid in 2018, thus the total overspend for
20 the test year versus the budgeted amount was \$46,732 (or 2.5%) after payments from
21 Consolidated Communications were taken into account for their share of pruning

costs. The Commission approved full recovery of this amount. Order No. 26,244 (Apr. 30, 2019).

Q. Has the Company tried to reduce costs associated with pruning?

A. Yes. On November 15, 2019, the Company informally provided to Staff its 2020 Plan for its review and comment. Please see Attachment GRT-2. In that Plan, the Company provided the option of continuing with a four-year cycle (which the Commission approved as part of Liberty's last rate case) or moving back to a five-year cycle, all due to the fact that the labor costs for tree pruning have significantly increased, as previously discussed in the direct testimony of Ms. Green and Ms. Tebbetts. As of the date of this testimony, a date for discussion of Staff's comments on the 2020 Plan has not yet been finalized.

Q. Will the Company meet the clearance requirements of Puc 307.10 if it reduces its spending on vegetation management?

A. No. Puc 307.10(a) states:

With the landowners' consent, utilities shall prune trees adjacent to all distribution circuits to the following minimum clearances on no more than a 5 year cycle:

(1) 10 feet below the conductors;

(2) 8 feet to the side of the nearest conductor; and

(3) 15 feet above the conductors, at time of pruning.

If the Company reduces its vegetation management budget to the amount recommended by Staff, we will not meet these clearance requirements on a four- or five-year cycle. The

1 amount recommended by Staff is also insufficient to fund a program that can maintain or
2 improve tree related reliability, and Staff's recommendation was not based on current
3 costs or the actual needs of the system. At the current bid rates and Staff's proposed
4 budget of \$1,678,000, it is projected that the Company would have funding that would
5 require it to extend the trim cycle to six or seven years, also a violation of Puc 307.10.

6 In order to comply with Puc 307.10 and not exceed a five-year cycle, the VMP requires a
7 minimum average of \$1,372,000 in funding for planned cycle trimming *alone*. This
8 funding amount does not include any other component of the program (planning,
9 removals, traffic detail, etc.). The Company has proposed an alternative plan to reduce
10 costs by reverting from a four-year to a five-year cycle. Note that even if the Company
11 moved back to a five-year cycle, the costs, as shown in Attachment GRT-2, are still
12 greater than the request of \$1,944,301. However, this proposed alternative five-year
13 cycle budget at least allows for the Company to meet the clearance requirements of Puc
14 307.10.

15 **Q. During the technical session, did the Company discuss with Staff the fact that it**
16 **cannot maintain its clearances as required under Puc 307.10?**

17 A. Yes. Staff responded that the rule is essentially optional, citing Puc 307.10(c), which
18 provides:

19 (c) Utilities shall not be required to prune to the clearance standards
20 specified in (a) of this section, where:

21 (1) The land-owner has refused or restricted permission to prune;

1 (2) A municipality or other local governing body, by ordinance or other
2 official means, has refused or restricted permission to prune; or

3 (3) Pruning to the standards specified in subpart (a) would be detrimental
4 to the health of the tree, in which the utility shall adhere to the guidelines
5 provided in ANSI A300 Part 1– 2008 Edition, available as noted in
6 Appendix B.

7 Staff indicated at the technical session that Puc 307.10(c)(3) provides an out for the
8 Company because the Company only has to prune to the clearances if the trees are
9 unhealthy. If the trees are healthy, Staff suggested there is no requirement to prune to the
10 required clearance. Staff also explained that if it does not make financial sense to prune
11 to required clearances, then the Company does not have to meet the rule’s requirements.
12 Staff’s comments about “financial sense” appear to imply that if there are not sufficient
13 funds available then it is acceptable to trim less than the specified clearances in Puc
14 307.10. As discussed below, the Company does not agree with that interpretation of the
15 rule. When Staff was asked about the Company filing a waiver for the rule, Staff noted a
16 waiver is not needed if the Company adopted Staff’s interpretation of the rule.

17 The Commission’s December 3, 2009, *After Action Review December 2008 Ice Storm*
18 *Final Report* provides relevant “action items” on page 15:

19 2.2 Staff will meet with PSNH, Unitil, National Grid and NHEC and submit
20 recommended trim cycles and zones by April 2010, to be promulgated in
21 the Puc 300 rules. The following should be considered as a starting point
22 for this review: all sub-transmission circuits (34.5 kV – 69 kV) to be
23 trimmed on a cycle not to exceed 48 months, and all distribution circuits be
24 trimmed on a cycle not to exceed 60 months; all 3-phase distribution circuits
25 to have clearances of 10 feet below, 8 feet to the side, and 15 feet above;
26 and, single phase circuits and those 3-phase circuits with Hendrix cable to
27 be cleared 10 feet above and below and 8 feet to the side. Though
28 considerably more expensive, “ground-to-sky” trimming should be

1 considered, as should the use of chemical treatments as part of an integrated
2 vegetation management program.

3 Note that the Commission implemented this recommended action item by promulgating
4 Puc 307.10, which first appeared in the Puc 300 rules after this Report.

5 The Company also disagrees with Staff's interpretation of the above exception to the
6 rule's clearance requirements. The plain language of the rule applies to the health of
7 single trees; Staff's suggestion would make it apply to the thousands of trees³ the
8 Company must prune to satisfy the rule's clearance requirements.

9 **Q. Does the Company agree with Staff's interpretation of the rule?**

10 A. No. We disagree that the rules require decreased clearances and think that reading the
11 rule in that fashion will result in poor outcomes for our customers.

12 **V. OTHER ITEMS**

13 **Q. Mr. Dudley noted that Staff is recommending non-substantive changes to the tariff.**
14 **Has Staff provided these recommendations to the Company?**

15 A. No. Please see Attachment GRT-3 for Staff's response to a request of the list of
16 proposed changes. During the technical session, the Company asked for a high level
17 understanding of what these tariff changes are and was told Staff does not know what the
18 changes consist of, that they do not have a list, and that they have not seen a markup of

³ There are approximately 300 trees per mile for the 927 miles of distribution lines in the Company's service territory, which means we have an estimated 278,000 trees.

1 the changes to the tariff. Thus, the Commission should disregard Mr. Dudley's
2 recommendation in this regard.

3 **Q. What is Mr. Demmer's position on creating a table to simplify interconnection fees**
4 **for customers and developers?**

5 A. Mr. Demmer believes the change should be addressed through Docket IR 15-296. Please
6 see Attachment GRT-4.

7 **Q. Does the Company agree with this position?**

8 A. No. Docket No. IR 15-296 has been ongoing since 2015, and as Mr. Demmer notes in
9 his data response provided in Attachment GRT-4, the working group has not convened.
10 We think that it would more expeditious, and in the public interest, to make this change
11 to the Company's tariff now while it is being considered in this case and to provide the
12 same information for customers and developers that is contained in Eversource's tariff.

13 **VI. CONCLUSION**

14 **Q. Does this conclude your testimony?**

15 A. Yes.

Heather Tebbetts

From: Maureen Karpf
Sent: Wednesday, November 15, 2017 3:29 PM
To: tom.frantz@puc.nh.gov; Stachow, Leszek (Leszek.Stachow@puc.nh.gov); richard.chagnon@puc.nh.gov; suzanne.amidon@puc.nh.gov; Dexter, Paul (Paul.Dexter@puc.nh.gov)
Cc: Joel Rivera; Jeff Carney; Charles Rodrigues; Michael Sheehan; Heather Tebbetts; Stephen Hall; Steven Mullen
Subject: Liberty Utilities - CY2018 REP/VMP Plan
Attachments: 5072 2017-11-15 REP VMP Program Plan CY2018.pdf

Good Afternoon,

Consistent with the Settlement Agreement in Docket No. DE 13-063, attached please find Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities' Reliability Enhancement Plan and Vegetation Management Plan for Calendar Year 2018.

Please contact Steve Mullen to arrange a meeting to discuss the plan. Thank you.

Regards,
Maureen

Maureen Karpf | [Liberty Utilities \(New Hampshire\)](#) | Coordinator, Rates & Regulatory Affairs
P: 603-216-3604 | C: 603-327-9844 | E: Maureen.Karpf@libertyutilities.com
15 Buttrick Road, Londonderry, NH 03053

**Reliability Enhancement Plan (REP)
and Vegetation Management Plan
(VMP) for Calendar Year 2018
(January 1, 2018 – December 31,
2018)**

November 15, 2017

**Submitted to:
New Hampshire
Public Utilities Commission Staff**

Submitted by:



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CY2018 REP VMP Proposal
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I. Introduction

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities (“Liberty” or the “Company”) hereby submits its proposed Reliability Enhancement Plan (“REP”) and Vegetation Management Plan (“VMP”) for the calendar year 2018 (“CY2018 Plan”). This CY2018 Plan is submitted consistent with the requirements in Attachment F to the Settlement Agreement in Docket No. DE 13-063 (the “Settlement Plan”) that was approved by the Commission in Order No. 25,638 (March 17, 2014), as amended by the Settlement Agreement in Docket No. DE 16-383 that was approved by the Commission in Order No. 26,005 (April 12, 2017). For convenience purposes, a copy of the REP/VMP Program document from DE 13-063 is included as Appendix 5.

Section 1: Proposed O&M Budget

The proposed operating and maintenance (“O&M”) budgets for REP and VMP activities for 2018 are shown in Appendix 1. For calendar year 2018, Liberty proposes to spend \$2,390,000 on O&M expenses related to VMP activities. The VMP O&M spending includes \$539,000 that Liberty will bill to FairPoint for its share of the planned vegetation maintenance work (Appendix 1, column c). As shown on line 14, those reimbursements are subtracted from the total amount of VMP O&M expenses to be recovered, resulting in an adjusted total of VMP O&M expenses of \$1,851,000. This amount exceeds the Base Plan O&M Budget amount of \$1,500,000 by \$351,000. Consistent with Section III.b. of the REP/VMP Program, Liberty is submitting this budget for Staff’s consideration as it exceeds the Base Plan O&M Budget.

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1 The 2017 VMP Plan budgeted spending provided to Staff on November 15, 2016, is
2 shown in Appendix 1, column (a), for comparison. The Company provides the following
3 explanation of the major cost drivers for 2018 as well as significant differences versus
4 2017.

5 **Vegetation Management Cost Drivers**

6 The primary vegetation management cost drivers for CY2018 in comparison to CY2017
7 are related to the following items. In CY2017, Liberty implemented the first year of the
8 four-year cycle as approved by the Commission in Docket No. DE 16-383. Advantages
9 of a four-year cycle include: minimizing the amount of spot or interim trimming between
10 cycles and reducing the time between cycles provides for earlier detection of dead/dying
11 and weakly attached limbs forming since the last cycle. Broken tree limbs, both alive and
12 dead, are a major cause of tree interruptions on the Liberty system. In addition, a four-
13 year cycle will allow for quicker treatment of trees that have been damaged in storm
14 events and trees with limbs that have heavier foliage especially at the ends of limbs
15 during a good growth year or several good growth years. Thus, it is anticipated that the
16 number of broken tree limbs will decline annually during the cycle resulting in expected
17 reliability benefits. Although growth of tree limbs into the energized space is not a major
18 source of tree-related interruptions on the Liberty system, pruning one growing season
19 sooner minimizes growth and improves safety in areas of reduced or restricted clearances
20 either imposed by property owners or as the result of applying American National
21 Standards Institute (ANSI) A300 pruning standards that may result in less clearance.
22 ANSI A300 is the industry standard for tree care operations: "Tree, Shrub, and Other

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1 Woody Plant Management-Standard Pruning Practices.” The CY2018 Plan is the second
2 year of the four-year cycle and includes an increase of 30.7 miles of pruning and tree
3 removal over the CY2017 Plan. The CY2018 Plan allows the Company to perform
4 planned work on the four feeders out of the Olde Trolley 18 substation in Salem, New
5 Hampshire.

6 The second cost driver is an increase in the budgeted amount for prescriptive work
7 planning (Work Planners for Veg Plan) from \$224,000 in CY2017 to \$255,000 in
8 CY2018 as a result of moving to a shorter cycle and an increase in plan miles from
9 CY2017 to CY2018. Liberty implemented prescriptive work planning in CY2015 as a
10 means to improve the processes involved with property owner interaction and consent in
11 identifying the necessary work. Use of prescriptive work planning establishes better
12 clearances at the time of pruning, assesses risk trees and reduces that risk through tree
13 removal and identifying opportunities to minimize future work so subsequent cycles will
14 be focused on maintaining those newly established clearances at an anticipated lower
15 future cycle cost.

16 Prescriptive work planning is an industry best practice that is a systematic approach to
17 scheduling vegetation maintenance work around power lines and involves the patrol and
18 inspection of the power line corridor on a span-by-span basis. Under this program,
19 Liberty hires experienced contract foresters with college degrees and accepted industry
20 credentialing to conduct pruning requirements and risk/hazard tree assessments. Liberty
21 performs a 100% compliance audit of prescribed work prior to approving final invoicing
22 for completed circuits. The pruning contractor obtains consent from the property owner

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1 and performs only the work prescribed that consent has been given for at each location.
2 Prescriptive work planning benefits system reliability by identifying those areas that need
3 to be brought into compliance with the recently revised Puc 307.10 tree trimming
4 standards for clearance, thereby resulting in targeted, reliability focused pruning and tree
5 removal and fewer restricted trims and refusals. Prescriptive work planning benefits
6 customers by providing better clearances and manages reliability risks from hazardous
7 trees in the trim zone and fall in from outside the trim zone. The pruning contractor also
8 benefits from increased work force management efficiencies and productivity. Work
9 planning in CY2017 resulted in no property owner complaints, reduced the number of
10 historical restricted trims and refusals by more than 90%, increased clearances and the
11 number of hazard tree removals. These hazard trees were previously being maintained as
12 trees to trim.

13 The third major cost driver is continued higher costs for providing traffic control for
14 planned tree work and spot work activities with municipal uniformed police details for
15 towns in Liberty's Salem District as compared to using private traffic control companies.
16 The added cost in CY2017 for the Town of Salem, which now requires traffic control on
17 every street, was approximately \$5,000 per mile. This is double the cost in CY2016 and
18 in some cases is more than the cost of performing the planned work. Traffic control
19 provided by third party traffic control companies is \$400 per mile. The estimated
20 \$280,000 costs for CY2018 are similar to the \$292,500 budgeted amount for CY2017
21 mainly because of the higher cost per mile, but for less miles in the Town of Salem and
22 no work in the Town of Pelham for CY2018. The fourth major cost driver is an increase

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1 in hazard tree removal expenses from CY2017 to CY2018 as a result of significantly
2 more trees being identified and marked for removal on increased miles during the work
3 planning process.

4 **Section 2: Proposed Capital Investment Budget**

5 The Capital Investment Budget for CY2018 is shown in Appendix 2. In addition, the
6 capital budget for CY2017 is shown for comparison under column (b). Liberty has
7 included a capital investment budget of \$1,600,000 reflecting planned capital investment
8 closed to plant as part of its CY2018 plan. This amount includes \$1,500,000 of planned
9 2018 capital investment and \$100,000 of carryover funds for the Bare Conductor
10 Program work from 2017. Carryover occurs from year to year as a result of timing
11 differences due to amounts being closed to plant in the year following when the spending
12 occurred, which is a normal result of the timing involved from when the capital work is
13 performed, completed, invoiced to vendors, and processed through the accounting
14 system. The \$1,500,000 of new capital investment for 2018 equals the targeted annual
15 capital spending level approved in Docket No. DE 16-383. Details about the capital
16 projects proposed for CY2018 are set forth in Appendix 3.

17 In CY2018, one new single phase recloser is targeted for installation. Single phase
18 reclosers target circuit segments that would realize reliability benefits from single phase
19 tripping and reclosing and from isolating faults down to the smallest single phase
20 segment possible. These devices are designed to interrupt circuit segments following a
21 transient or temporary fault condition and then automatically restore the segment after a
22 short period to allow the fault to clear. These devices not only improve reliability of

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1 service, but also avoid the cost of dispatching a trouble shooter or line crew to the scene
2 to replace the fuse.

3 In addition, over three miles of bare mainline primary conductors are targeted for
4 replacement with spacer cable. Spacer cable is installed in areas prone to tree outages
5 that are too costly to rely on vegetation management practices alone to mitigate feeder
6 lockouts. The application of spacer cable, a covered conductor resistant to tree related
7 outages, significantly improves mainline circuit performance during windy and stormy
8 conditions as well as affording protection against incidental tree-conductor contact at the
9 end of the trim cycle and contact resulting from branches falling from above the trim
10 zone.

11 **Section 3: Future Reconciliation and Determination of Rate Impacts**

12 Liberty will make its CY2018 reconciliation filing with the Commission by March 15,
13 2019, to show actual O&M and capital expenses incurred from implementing the REP
14 and VMP for the CY2018. Actual expenses incurred by Liberty in implementing the
15 O&M components of the annual VMP will be reconciled to the proposed O&M amount
16 of \$1,851,000. In addition, the revenue requirement associated with capital expenditures
17 incurred as part of the REP investment will be included at the same time as the
18 REP/VMP Adjustment Provision for O&M expense is adjusted. At that time, the rate
19 impacts will be determined using actual spending and any over- or under-collection
20 balance that exists at that time.

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II. Conclusion

Liberty believes that implementation of the REP and VMP programs described in this plan is necessary to ensure that Liberty remains on its current path targeted to maintaining and improving reliability performance. These programs have contributed to actual performance improvement seen in recent years, and Liberty is committed to sustaining this improvement.

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Appendix 1 O&M Expenses

Line		(a) CY 2017 Budgeted Expenses	(b) CY 2018 Budgeted Expenses	(c) CY 2018 Anticipated Fairpoint Credits	Reference
1	<u>VMP O&M</u>				
2	Work Planners for Veg Plan	\$ 224,000	\$255,000		Appendix 6
3	Spot Tree Trimming	\$ 30,000	\$35,000		Appendix 6
4	Trouble and Restoration Maintenance	\$ 30,000	\$35,000		Appendix 6
5	Planned Cycle Trimming	\$ 1,147,803	\$1,230,000		Appendix 6
6	Police Detail Expenses - Cycle Trimming	\$ 292,500	\$280,000		Appendix 6
7	Hazard Tree Removal	\$ 350,000	\$450,000		Appendix 6
8	Interim Trimming	\$ 30,000	\$40,000		Appendix 6
9	Tree Planting	\$ 5,000	\$5,000		Appendix 6
10	Other Police Detail Expenses	\$ 32,500	\$40,000		Appendix 6
11	Sub-Transmission Right of Way Clearing	\$ 140,000	\$20,000		Appendix 6
12	Anticipated Fairpoint Credits			\$539,000	
13	Total VMP O&M Expenses	\$ 2,281,803	\$2,390,000		
14	Less: Reimbursements from Fairpoint	\$ (420,000)	\$ (539,000)		
15	VMP O&M Expenses Net of Fairpoint Credits	\$ 1,861,803	\$ 1,851,000		
16	Total REP and VMP O&M Expenses	\$ 1,861,803	\$ 1,851,000		

Appendix 2

REP Capital Investments - Summary

Line	Projects	(a) 2017 Goal	(b) CY 2017 Capital Investment Budget	(c) 2018 Goal	(d) CY 2018 Capital Investment Budget	Reference
1	Bare Conductor Replacement	3.7 mi	\$ 1,500,000	3.65 mi	\$ 1,450,000	Appendix 3, lines 1-2
2	Single Phase Reclosing Installations	0 Locations	\$ -	1 Location	\$ 50,000	Appendix 3, line 3
3	Single Phase Trip Saver Installations	5 Units	\$ 25,000	0 Units	\$ -	
4	Previous CY Carryover		\$ 100,000		\$ 100,000	Appendix 3, line 4
5	Totals		<u>\$ 1,625,000</u>		<u>\$ 1,600,000</u>	Appendix 3, line 5

(*)

(*) From CY 2017 Plan submitted to Staff on November 15, 2016

Appendix 3

Reliability Enhancement Program Capital Costs

Line	Activities	Project Description	Funding Project Number	Work Order	Estimated Capital Investment to be Booked in CY 2018 (107)
1	1L2 Bare Conductor Replacement Project - Meriden Rd	Replace approximately 1 mile of bare conductors along Meriden Rd with 477 Spacer Cable.	8830-C18603	TBD	\$ 400,000
2	12L2 Bare Conductor Replacement Project - Route 12	Replace approximately 2.65 miles of bare conductors along Route 12 Walpole with 477 Spacer Cable.	8830-C18603	TBD	\$ 1,050,000
3	14L1 Single Phase recloser installation - Dutton Rd - 14L1	Install single phase tripping recloser at Dutton Rd Pelham NH	8830-C24073	TBD	\$ 50,000
4	Budgeted Capital Investment Carryover from previous calendar year				\$ 100,000
5	Totals				\$1,600,000

Appendix 2, line 5,
column (d)

Appendix 4 Vegetation Management Activities

CY 2018			
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	255.54	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
9	Subtransmission Right of Way Clearing	1.18 mi/13.92 ac	See Appendix 6 for definitions
10	Other Police Detail Expenses	As needed	See Appendix 6 for definitions
11	Substation	Feeder	OH Miles - Distribution
12	Lebanon #11	11L2	4.73
13	Lebanon #1	1L3	16.85
14	Monroe #15	15H1	12.56
15	Enfield #7	7L2	42.52
16	Hanover #6	6L4	0.95
17	Barron Ave. #10	10L1	9.74
18	Barron Ave. #10	10L2	7.30
19	Olde Trolley #18	18L3	6.16
20	Olde Trolley #18	18L1	0.03
21	Olde Trolley #18	18L2	8.99
22	Olde Trolley #18	18L4	13.24
23	Vilas Bridge #12	12L1	132.4
24	Charlestown #8	8L2	0.07
25	Total OH_Miles - Distribution		255.54
26	Subtransmission		OH Miles - Subtransmission
27	Monroe 15H1	15H1	1.18 miles/13.92 acres

Annendix

Granite State Electric Company

Reliability Enhancement Program and Vegetation Management Program

Docket No. DE 13-063

I. REP and VMP Commitment

Beginning April 1, 2014 and until the conclusion of the Company's next distribution rate case, the Company will continue its Reliability Enhancement Program ("REP") and a Vegetation Management Program ("VMP") (collectively, the "Program"), as set forth below.

II. Definitions of REP and VMP Activities

- a. Activities included in the REP are the following:
 - i. Spacer Cable Expansion/Bare Conductor Replacement
 - ii. Single Phase Recloser Replacement/Expansion
 - iii. Trip Saver Applications
- b. **Activities and expenses included in the VMP are set forth below:**
 - i. Spot Tree Trimming;
 - ii. Trouble & Restoration Maintenance;
 - iii. Planned Cycle Trimming;
 - iv. Cycle Trimming Police Details Expenses;
 - v. Hazard Tree Removal;
 - vi. Interim Trimming;
 - vii. Tree Planting;
 - viii. Subtransmission Right of Way Clearing; and
 - ix. Other Police Detail Expenses.

III. REP and VMP for FY 2014 and Thereafter

- a. Beginning with November 15, 2014, the Company will provide its REP and VMP plan (the "Plan") to Staff for the following calendar year for Staff's review. The Company will meet with Staff in technical sessions to discuss the Plan, obtain comments, and answer any questions regarding the plan to be implemented for the subsequent calendar year. After review by Staff, the Company will take all reasonable steps it deems appropriate to carry out and implement the Plan, taking into account the comments of Staff. Review by Staff of the Plan does not relieve the Company of its obligation to operate its business and maintain safe, reliable service through expenditures and other capital investments in the ordinary course of business that are not set forth in the Plan, nor does it bind Staff to a particular position regarding the adequacy and/or effectiveness of the Plan.

- b. The Plan shall provide a description of the activities along with targeted expenditures and investments of the proposed Plan to be implemented during the following calendar year. The Plan will itemize the proposed activities by general category and provide budgets for both operation and maintenance ("O&M") expenses and capital investments expected from implementation of the Plan. The O&M budget will be \$1,360,000 (the "Base Plan O&M") for the calendar year ("Base Plan O&M Budget"). The Company may also provide for consideration an alternative Plan with O&M budgets that exceed the O&M Base Amount for the calendar year. The Company will reconcile actual expenditures and investments with the Base Plan O&M amount of \$1,360,000 and shall be subject to the REP/VMP Adjustment Provision, as set forth in Section IV below. All of the combined expenses will be counted against the Base Plan O&M amount, along with any REP-related O&M that does not relate to a VMP category.

IV. REP/VMP Adjustment Provision

- a. During each calendar year, the Company shall track all O&M expenses incurred in implementing the components of the REP and VMP Plan. By March 15 of each year, the Company will make a reconciliation filing with the Commission. To the extent that the Company, in implementing the Plan, incurs expenses in an amount less than the Base Plan O&M amount, the difference between the Base Plan O&M amount and the amount of expenses actually incurred shall be refunded to customers or credited to customers for future REP/VMP program O&M expenditures, as the Commission determines is appropriate, with interest accruing at the customer deposit rate.
- b. To the extent the Plan submitted for review prior to the calendar year includes a budget higher than the Base Plan O&M Budget and the Company incurs expenses over the Base Plan O&M amount (consistent with the alternative budget reviewed by Staff), the incremental expense above the Base Plan O&M amount shall be included in rates, subject to Commission approval, through a uniform adjustment factor on a per kilowatt-hour basis and recovered over a twelve month period, commencing for usage on and after May 1, with interest accruing at the customer deposit rate. Any over or under-recoveries at the end of the twelve month period shall be taken into account in the next REP/VMP Adjustment Provision reconciliation period.

V. REP Capital Investment Allowance

The REP capital investment target shall be \$1 million annually. The Company shall track all capital investments made in accordance with the REP for each calendar year. At the same time that the Company makes its reconciliation filing for the REP/VMP Adjustment reconciliation, Granite State shall file a report detailing the actual amount of capital investments made in accordance with implementing the REP during the prior calendar year. The report shall include a calculation of the revenue requirement for adding these additional capital investments into rate

base, using the Company's current Commission approved capital structure and debt and equity. Provided that the investments were made in accordance with the REP, the Company will be allowed, subject to Commission approval, a permanent increase in its base distribution rates to recover the annual revenue requirement for those investments. This permanent REP Capital Investment Allowance will take effect for usage on and after May 1, at the same time as any REP/VMP Adjustments are implemented for the preceding calendar year as discussed in Section IV above.

VI. Procedure for Adjusting Base Distribution Rates for the REP Capital Investment Allowance

Base distribution rates shall be increased by the ratio of: (i) the incremental revenue requirement associated with the REP capital investment; and (ii) forecasted base distribution revenue for the prospective year.

VII. Annual Report, Plan Deviations, and SAIDI/SAIFI Results

- a. At the same time the Company makes its reconciliation and rate adjustment filing (by March 15 of each year), the Company will file an annual report on the prior calendar year's activities. In implementing the Plans, the circumstances encountered during the year may require reasonable deviations from the original Plans reviewed by Staff. In such cases, the Company would include an explanation of any deviations in the report. For cost recovery purposes, the Company has the burden to show that any deviations were due to circumstances out of its reasonable control or, if within its control, were reasonable and prudent. Included in the annual report, the Company will report its SAIDI and SAIFI results for the prior calendar year.
- b. The Company shall also report SAIDI/SAIFI results:
 - i. Inclusive of all events identified in items ii, iv and v below;
 - ii. Using the criteria for major storm exclusions set forth by the Commission and IEEE Standard 1366.
 - iii. On a rolling five-year average for each metric in order to minimize the impact of uncontrollable factors;
 - iv. Excluding the effect on performance by supply assets owned by others given the potential impact of transmission on the Company's reliability performance;
 - v. Excluding planned and notified outages from its calculation of SAIDI and SAIFI, and;
 - vi. Consistent with the Puc 300 rules.
- c. The Commission's definition of a major storm qualifying for exclusion from SAIDI and SAIFI reporting is 30 concurrent troubles and 15% of customers interrupted, or 45 concurrent troubles. (Troubles are defined as interruption events occurring on either primary or secondary lines).

Appendix 6

Definitions

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 where practical. 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: (Unplanned Work)

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: (Unplanned Work)

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: 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: (Unplanned work)

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.

Heather Tebbetts

From: Heather Tebbetts
Sent: Thursday, November 14, 2019 2:40 PM
To: Frantz, Tom; Chagnon, Richard; Demmer, Kurt; Dexter, Paul (Paul.Dexter@puc.nh.gov); Amidon, Suzanne
Cc: Maureen Karpf; Joel Rivera; Heather Green; Charles Rodrigues; Anthony Strabone; Michael Sheehan; Melissa Samenfeld; Steven Mullen; David Simek
Subject: Liberty Utilities - CY2020 REP/VMP Plan
Attachments: 5072 2019-11-14 REP VMP Program Plan CY2020.pdf

Good Afternoon,

Consistent with the Settlement Agreement in Docket No. DE 13-063, as modified in Docket No. DE 16-383, attached please find Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities' Reliability Enhancement Plan and Vegetation Management Plan for Calendar Year 2020.

We would like to discuss this plan presented with you at your earliest convenience.

Please contact me to arrange a meeting to discuss.

Thank you.

Heather Tebbetts | [Liberty Utilities \(New Hampshire\)](#) | Manager, Rates and Regulatory Affairs
P: 603-216-3563 | C: 603-315-6020 | E: Heather.Tebbetts@libertyutilities.com
15 Buttrick Road, Londonderry, NH 03053

**Reliability Enhancement Plan (REP)
and Vegetation Management Plan
(VMP) for Calendar Year 2020
(January 1, 2020 – December 31,
2020)**

November 15, 2019

**Submitted to:
New Hampshire
Public Utilities Commission Staff**

Submitted by:



1 **I. Introduction**

2 Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities (“Liberty” or the
3 “Company”) hereby submits its proposed Reliability Enhancement Plan (“REP”) and
4 Vegetation Management Plan (“VMP”) for the calendar year 2020 (“CY2020 Plan”).

5 This CY2020 Plan is submitted consistent with the requirements in Attachment F to the
6 Settlement Agreement in Docket No. DE 13-063 that was approved by the Commission
7 in Order No. 25,638 (March 17, 2014), as amended by the Settlement Agreement in
8 Docket No. DE 16-383 that was approved by the Commission in Order No. 26,005 (April
9 12, 2017). For convenience, a copy of the REP/VMP Program document from DE 13-
10 063 is included as Appendix 5 and the definitions are included as Appendix 6.

11 In CY2017, Liberty implemented the first year of the four-year trim cycle as approved by
12 the Commission in Docket No. DE 16-383, with CY2019 being the third year of that
13 initial four-year cycle. Advantages of a four-year cycle include minimizing the amount of
14 spot or interim trimming between cycles, and reducing the time between cycles provides
15 for earlier detection of dead/dying and weakly attached limbs forming since the last cycle.
16 Broken tree limbs, both alive and dead, are a major cause of tree interruptions on the
17 Liberty system. A four-year cycle also allows for quicker identification and treatment of
18 trees that have been damaged in storm events and trees with limbs that have heavier
19 foliage especially at the ends of limbs during a good growth year or several good growth
20 years. Thus, it is anticipated that the number of broken tree limbs will decline annually
21 during the cycle resulting in expected reliability benefits. Although growth of tree limbs
22 into the energized space has not been a major source of tree-related interruptions on the

1 Liberty system, pruning one growing season sooner than the prior five-year cycle
2 minimizes growth and improves safety in areas of reduced or restricted clearances that are
3 imposed either by property owners or as the result of applying American National
4 Standards Institute (ANSI) A300 pruning standards. ANSI A300, titled “Tree, Shrub, and
5 Other Woody Plant Management-Standard Pruning Practices,” is the industry standard for
6 tree care operations. The CY2020 Plan encompasses what will be the fourth year of the
7 initial four-year cycle.

8 As stated above, the transition from a five-year to a four-year trim cycle allows for
9 quicker identification of damaged and hazard trees. As more trees are identified, total
10 costs increase not only for removal of the trees but also for the related traffic control.
11 Given the limits placed on available annual funding since the start of the initial four-year
12 cycle, the Company has more trees marked for removal than there is funding to remove.
13 Additionally, there are a significant number of trees required for removal to increase the
14 side clearance from six feet to the eight-foot side clearance required by Puc 307.10. A
15 request for additional tree removals is being made in the current rate case. In order to
16 meet an anticipated \$850,000 annual cost for tree removals for one full four-year cycle,
17 and given the previously budgeted annual level of approximately \$450,000, there is a
18 request currently pending before the Commission in Docket No. DE 19-064 for an
19 additional \$400,000 annually for four years to provide funding to properly clear the right-
20 of-ways.

21 As provided in the Appendices, the Commission will see that the cost of performing the
22 work has increased. The workforce for tree work and similar trades is suffering and

1 changing significantly, thus the cost to keep a qualified and competent workforce is
2 increasing. The most recent proposals the Company has received to perform tree work
3 have increased in cost more than anticipated. Liberty was shielded from these realities
4 for the past few years because of a multi-year contract. The Company is currently seeking
5 additional quotes and, after reviewing those responses, intends to award the work on or
6 around December 1, 2019. If the bid rates arrive in line with the most recent quote, the
7 Company, along with others seeking such contracts including other electric utilities, are
8 looking at a significant increase in the cost of having the work performed. Recognizing
9 this cost difference, Liberty is putting forth two Operation and Maintenance (“O&M”)
10 budgets in this submittal. Budget Appendix 1A, “Business as Usual,” represents the
11 current proposed costs of performing the routine planned and unplanned work and
12 planned work of 223 miles. Budget Appendix 1B, “Alternate,” represents an alternate
13 plan of performing reduced miles, 175 miles, and adjusting work back to a five-year plan.

14 Given that this filing covers the expected scope of the REP and VMP work to be
15 performed during CY2020, the Company is raising the issue of the increased workforce
16 costs to allow for discussion as to: (a) the scope of work for hazard tree removals to be
17 performed during CY2020; (b) the cost of those tree removals; and (c) the preferred
18 methods for recovery of the related costs.

19 **Section 1: Proposed O&M Budget**

20 The proposed O&M budget for VMP activities for 2020 is shown in Appendix 1A –
21 “Business as Usual.” As stated above, this budget includes a modification in additional
22 funding for hazard tree removals and an increase in prices to perform the work. For

1 calendar year 2020, Liberty proposes to spend \$3,444,000 on O&M expenses related to
2 VMP activities. The VMP O&M spending includes an estimated \$838,880 that Liberty
3 will bill to Consolidated Communications for its share of the planned vegetation
4 maintenance work (Appendix 1A, column e, line 14). As shown on line 15, those
5 reimbursements are subtracted from the total amount of VMP O&M expenses to be
6 recovered, resulting in an adjusted total of VMP O&M expenses of \$2,605,120. Liberty
7 is submitting this budget for Staff's consideration as it exceeds the O&M budget
8 proposed in the rate case by \$660,819.

9 An alternate budget (as described above) is shown in Appendix 1B "Alternate." For
10 calendar year 2020, Liberty proposes to spend \$2,840,690 on O&M expenses related to
11 VMP activities and going back to a five-year cycle. The VMP O&M spending includes
12 \$712,791 that Liberty will bill to Consolidated Communications for its share of the
13 planned vegetation maintenance work (Appendix 1B, column e, line 14). As shown on
14 line 15, those reimbursements are subtracted from the total amount of VMP O&M
15 expenses to be recovered, resulting in an adjusted total of VMP O&M expenses of
16 \$2,127,899. This exceeds the proposed amount of \$1,944,301 in the current rate case by
17 \$183,598. This realizes a reduction to \$360,000 for tree removals from moving back to a
18 five-year cycle and the \$281,690 in workforce increase due to the increased per mile
19 costs. The Company has also requested an additional \$400,000 annually over four years
20 to catch up on hazard tree removals. If we are to go back to a five year cycle, that amount
21 would decrease to \$320,000 annually for five years.

1 **Vegetation Management Cost Drivers**

2 The primary vegetation management cost drivers for CY2020, in comparison to CY2018
3 and CY2019, are workforce costs, tree removals, traffic control, and ROW work.

4 For the proposed “Business as Usual” budget, Appendix 1A:

5 The first and newest driver is the workforce issues and the increased cost to do the work.

6 The industry and workforce of tree work and beyond is experiencing a shift and loss of
7 workforce. The alternate choices for employment are pulling many of the workforce out
8 of the industry, relocating to higher paying locations, or working for other firms in other
9 trades or sectors that provide more stability, value, and stronger relationships with
10 companies and other parties with which they interact. As a result, the cost of retaining a
11 workforce has been increasing. Liberty has been shielded from this industry trend in
12 recent years because the last bid submittal was reviewed in 2016. In attempts to provide
13 stability, Liberty entered into a multi-year contract in 2017. The three-year contract with
14 an option to extend and negotiate came to fruition in 2019. The quote for the extension
15 came in high and negotiation was not a viable option. The Company is seeking alternate
16 quotes for the fourth and last year of the four-year cycle, CY2020.

17 The Company has already experienced these changes through the loss of crews over the
18 last year. In 2018, the contractor was able to keep ten crews on property. In 2019, we are
19 often at seven or eight crews, with losses of long time crews occurring. Workforce
20 retention for tree crews and quality work is a frequent topic of discussion and concern at

1 many utilities. It was the central theme at the 2019 Utility Arborist Association Summit
2 meeting held in April 2019.

3 The Business as Usual budget, Appendix 1A, aligns with our current rate case proposal of
4 performing work on a four-year cycle, including the additional \$400,000 of tree removals
5 in the rate case, and keeping all budget line items aligning to \$1,944,000 target except the
6 Planned Cycle Trimming, which is an additional \$695,000.

7 The second cost driver is the tree removals, which was also a cost driver last year. Tree
8 removal is necessary to move from the previous six-foot side clearance to the new eight-
9 foot side clearance requirement of Puc 307.10 and to potentially decrease the number of
10 future removals of 5-inch to 12-inch diameter trees in subsequent cycles.

11 The work prescription for removal, rather than pruning or allowing the trees to remain in
12 the corridor, is governed by Puc 307.10(c) and the ANSI A300 Part 1 standards. Because
13 of the location of these trees related to the clearance area, pruning is not viable and
14 removal is the appropriate work tool. These tree and limb removals align with best
15 practices in the industry, follow professional standards of arboriculture, reliability
16 concerns, and cost effectiveness.

17 The Company is exposed to higher costs of otherwise private tree removal and “Make
18 Safe” situations. Previously, if the tree work was not within Liberty’s scope of work, we
19 would assist a private tree contractor in making the situation safe for them to work.
20 Changes in the language of the ANSI Z133-2017 Safety Requirements for Arboricultural
21 Operations now limit some tree work such that it can only be performed by the utility.

1 These changes to the ANSI requirements have added the Incidental Line Clearance
2 Contractor status.

3 Under these new standards, if a property owner engaged a trained and skilled private tree
4 care company to perform tree work within close proximity to the wires, there are
5 situations in which that contractor could not perform the work. To say it another way, a
6 contractor qualified to work for a utility and also works in the residential sector has two
7 different abilities of work pursuant to the ANSI standards. If hired by the utility, they
8 have one chart to abide by. When hired by a residential customer, they have another chart
9 to abide by. There are situations where the tree work can only be performed by a
10 contractor hired by the utility. We have already experienced impacts from this change
11 and anticipate it will increase the costs of tree work.

12 The increase in the number of trees identified for removal has almost doubled the annual
13 cost of removal through the work planning process. This increased number of trees to be
14 removed will also significantly increase traffic control costs.

15 The third cost driver in both budgets, similar to last year, is traffic control. The cost of
16 traffic control is directly related to how many tree crews are performing various planned
17 and unplanned maintenance activities and in which municipalities those crews are
18 working. Liberty's Salem district towns of Salem, Pelham, Windham, and Derry
19 continue to require police details and at times require multiple units. Walpole has also
20 recently added additional police traffic control requirements.

1 The fourth cost driver is the cost of Right of Way clearing. Right of Way continues to be
2 a cost driver in both budgets when comparing to the rate case year of 2018. The CY2018
3 right-of-way clearing budget was to cover any spot work needed as a result of foot/aerial
4 surveys. Going forward, Liberty is working to adjust the scheduling of the ROW lines to
5 more evenly spread the work over the next four-year cycles.

6 For the proposed “Alternate” budget, Appendix 1B:

7 The main driver is, again, related to the workforce as described above.

8 The Alternate budget, Appendix 1B, aligns with our current rate case budget of
9 \$1,944,000 with an additional \$360,000 for removals. It does not align with our recent
10 four-year cycle, or 223 miles to be trimmed. Rather, it returns us back to a five-year
11 cycle, or 175 miles of planned cycle trimming. Moving back to a five-year cycle would
12 allow us to complete the mileage and removals necessary for reliability and compliance
13 with Puc 307.10, but at a lower cost.

14 **Section 2: Proposed Capital Investment Budget**

15 The capital investment budget for CY2020 is shown in Appendix 2. The capital budget
16 for CY2019 is also shown for comparison under column (b). Liberty has included a
17 capital investment budget of \$1,600,000, reflecting planned capital investment closed to
18 plant as part of its CY2020 plan. This amount includes \$1,500,000 of planned 2020
19 capital investment and \$100,000 of expected costs for work completed for the Bare
20 Conductor Program in 2019 that will not be recorded until 2020. As a result of timing
21 differences between the project going in service and the closing of the work order,

1 \$100,000 is included in the following year's budget. This is a normal result of the timing
2 involved from when the capital work is performed, completed, invoiced to vendors, and
3 processed through the accounting system. The \$1,500,000 of new capital investment for
4 2020 equals the targeted annual capital spending level approved in Docket No. DE 16-
5 383. Details about the capital projects proposed for CY2020 are set forth in Appendix 3.

6 In CY2020, four miles of bare mainline primary conductors are targeted for replacement
7 with spacer cable. Spacer cable is installed in areas prone to tree outages that are too
8 costly to rely on vegetation management practices alone to mitigate feeder lockouts. The
9 application of spacer cable, a covered conductor resistant to tree related outages,
10 significantly improves mainline circuit performance during windy and stormy conditions,
11 and affords protection against incidental tree-conductor contact at the end of the trim
12 cycle and contact resulting from branches falling from above the trim zone.

13 **Section 3: Future Reconciliation and Determination of Rate Impacts**

14 Liberty will make its CY2020 reconciliation filing with the Commission by March 15,
15 2021, to show actual O&M and capital expenses incurred from implementing the REP
16 and VMP for the CY2020. Actual expenses incurred by Liberty in implementing the
17 O&M components of the annual VMP will be reconciled to the proposed O&M amount
18 of \$1,944,000. In addition, the revenue requirement associated with capital expenditures
19 incurred as part of the REP investment will be included at the same time as the
20 REP/VMP Adjustment Provision for O&M expense is adjusted. At that time, the rate
21 impacts will be determined using actual spending and any over- or under-collection
22 balance that exists at that time.

1 **II. Conclusion**

2 Liberty requests that a budget be agreed upon that is based on the results of the most
3 recent bid. If the bid numbers come in such that budget Appendix 1B is the only
4 approved option, the Company would then return to a five-year cycle. If the Company is
5 to remain on a four-year cycle, budget Appendix 1A would need to be approved.

6 Liberty believes that implementation of the REP and VMP programs described in this
7 plan, particularly including funding at the level of the “Ideal” O&M budget, is necessary
8 to ensure that Liberty remains on its current path targeted to maintaining and continually
9 improving reliability performance. These programs have contributed to actual
10 performance improvements seen in recent years, and Liberty is committed to sustaining
11 that improvement.

Appendix 1A - O&M Expenses

Line	(a) CY2018 Budgeted Expenses	(b) CY2018 Actual Expenses	(c) CY2019 Adjusted Budget Expense	(d) CY 2020 Budgeted Expenses		(e) CY 2020 Anticipated Fairpoint Credits	Reference
1 VMP O&M							
2 Work Planners for Veg Plan	\$ 227,000	\$ 203,159	\$ 213,200	\$ 205,000		\$ 40,180	Appendix 6
3 Spot Tree Trimming	\$ 30,000.00	\$ 34,811.74	\$ 36,900	\$ 37,000			Appendix 6
4 Trouble and Restoration Maintenance	\$ 30,000	\$ 32,078	\$ 36,900	\$ 37,000			Appendix 6
5 Planned Cycle Trimming	\$ 1,120,086	\$ 1,166,655	\$ 980,000	\$ 1,675,000	*	\$ 328,300	Appendix 6
6 Police Detail Expenses - Cycle Trimming & Other	\$ 290,000	\$ 402,083	\$ 400,000	\$ 400,000		\$ 78,400	Appendix 6
7 Hazard Tree Removal - DE 19-064	\$ 400,000	\$ 535,490	\$ 400,000	\$ 400,000		\$ 196,000	Appendix 6
8 (Rate Case Hazard Tree Removals)				\$ 400,000	**	\$ 196,000	
9 Interim Trimming	\$ 30,000	\$ 29,679	\$ 30,000	\$ 30,000			Appendix 6
10 Tree Planting	\$ 5,000	\$ 4,345	\$ 5,000	\$ 10,000			Appendix 6
11 Sub-Transmission Right of Way Clearing	\$ -	\$ -	\$ 205,000	\$ 250,000			Appendix 6
12 Sub-Transmission Right of Way Sideline	\$ 25,000	\$ 14,142	\$ -	\$ -			Appendix 6
13 Total VMP O&M Expenses	\$ 2,157,086	\$ 2,422,443	\$ 2,307,000	\$ 3,444,000			
14 Less: Reimbursements from Consolidated	\$ 480,000	\$ 478,142	\$ 508,267	\$ 838,880		\$ 838,880	
15 VMP O&M Expenses Net of Consolidated Credits	\$ 1,677,086	\$ 1,944,301	\$ 1,798,733	\$ 2,605,120			

*Cycle price came in 40% higher

**Included in Docket No. DE 19-064

Appendix 1B "Alternate" - O&M Expenses

Line	(a) CY2018 Budgeted Expenses	(b) CY2018 Actual Expenses	(c) CY2019 Adjusted Budget Expense	(d) CY 2020 Budgeted Expenses		(e) CY 2020 Anticipated Fairpoint Credits	Reference
1 VMP O&M							
2 Work Planners for Veg Plan	\$ 227,000	\$ 203,159	\$ 213,200	\$ 155,000		\$ 30,380	Appendix 6
3 Spot Tree Trimming	\$ 30,000.00	\$ 34,811.74	\$ 36,900	\$ 36,900			Appendix 6
4 Trouble and Restoration Maintenance	\$ 30,000	\$ 32,078	\$ 36,900	\$ 36,900			Appendix 6
5 Planned Cycle Trimming	\$ 1,120,086	\$ 1,166,655	\$ 980,000	\$ 1,261,690	*	\$ 247,291	Appendix 6
6 Police Detail Expenses - Cycle Trimming & Other	\$ 290,000	\$ 402,083	\$ 400,000	\$ 320,000		\$ 62,720	Appendix 6
7 Hazard Tree Removal	\$ 400,000	\$ 535,490	\$ 400,000	\$ 360,000		\$ 176,400	Appendix 6
8 Hazard Tree Removals - 5 Year Cycle				\$ 320,000	**	\$ 156,800	
9 Interim Trimming	\$ 30,000	\$ 29,679	\$ 30,000	\$ 30,000			Appendix 6
10 Tree Planting	\$ 5,000	\$ 4,345	\$ 5,000	\$ 5,000			Appendix 6
11 Sub-Transmission Right of Way Clearing	\$ -	\$ -	\$ 205,000	\$ 250,000			Appendix 6
12 Sub-Transmission Right of Way Sideline	\$ 25,000	\$ 14,142	\$ -	\$ -			Appendix 6
13 Total VMP O&M Expenses	\$ 2,157,086	\$ 2,422,443	\$ 2,307,000	\$ 2,775,490			
14 Less: Reimbursements from Consolidated	\$ 480,000	\$ 478,142	\$ 508,267	\$ 673,591		\$ 673,591	
15 VMP O&M Expenses Net of Consolidated Credits	\$ 1,677,086	\$ 1,944,301	\$ 1,798,733	\$ 2,101,899			

*Cycle price came in 40% higher, but cost is at 5 year cycle

**Included in Docket No. DE 19-064

Appendix 2

REP Capital Investments - Summary

Line	Projects	(a) 2020 Goal	(b) CY 2020 Capital Investment Budget	(c) 2020 Goal	(d) CY 2020 Capital Investment Budget	Reference
1	Bare Conductor Replacement	3.79 mi	\$ 1,450,000	4 mi.	\$ 1,500,000	Appendix 3, lines 1-2
2	Single Phase Reclosing Installations	None		None	\$ -	
3	Single Phase Trip Saver Installations	6 Units	\$ 50,000	None	\$ -	
4	Previous CY Carryover		<u>\$ 100,000</u>		<u>\$ 100,000</u>	Appendix 3, line 3
5	Totals		<u><u>\$ 1,600,000</u></u>		<u><u>\$ 1,600,000</u></u>	Appendix 3, line 4
			(*)			

(*) From CY 2019 Plan submitted to Staff on November 15, 2018

Appendix 3

Reliability Enhancement Program Capital Costs

Line	Activities	Project Description	Funding Project Number	Work Order	Estimated Capital Investment to be Booked in CY 2020
1	13L3 Bridge St Bare Conductor Replacement	Replace approximately 1.2 miles of bare conductors along Bridge St Salem with 477 Spacer Cable.	8830-2040	TBD	\$ 500,000
2	14L2 Nashua Rd / Burns Rd / Mammoth Rd Bare Conductor Replacement	Replace approximately 1.3 miles of bare conductors along Nashua Rd Pelham, 0.7 miles along Burns Rd Pelham and 0.8 miles along Mammoth Rd Pelham with 477 Spacer Cable.	8830-2040	TBD	\$ 1,000,000
3	Budgeted Capital Investment Carryover from previous calendar year				\$ 100,000
4	Totals				\$1,600,000

Appendix 2, line 5,
column (d)

Appendix 4A - O&M Expenses

CY 2020 Vegetation Management Activities

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	29.65
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		223.78
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 4B - O&M Expenses

CY 2020 Vegetation Management Activities

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	174.76	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			
13			
15			
16	Enfield #7	7L1	78.41
17	Spicket River #13	13L3	29.65
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	174.76
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

Granite State Electric Company
Reliability Enhancement Program and Vegetation Management Program
Docket No. DE 13-063

I. REP and VMP Commitment

Beginning April 1, 2014 and until the conclusion of the Company's next distribution rate case, the Company will continue its Reliability Enhancement Program ("REP") and a Vegetation Management Program ("VMP") (collectively, the "Program"), as set forth below.

II. Definitions of REP and VMP Activities

- a. Activities included in the REP are the following:
 - i. Spacer Cable Expansion/Bare Conductor Replacement
 - ii. Single Phase Recloser Replacement/Expansion
 - iii. Trip Saver Applications
- b. **Activities and expenses included in the VMP are set forth below:**
 - i. Spot Tree Trimming;
 - ii. Trouble & Restoration Maintenance;
 - iii. Planned Cycle Trimming;
 - iv. Cycle Trimming Police Details Expenses;
 - v. Hazard Tree Removal;
 - vi. Interim Trimming;
 - vii. Tree Planting;
 - viii. Subtransmission Right of Way Clearing; and
 - ix. Other Police Detail Expenses.

III. REP and VMP for FY 2014 and Thereafter

- a. Beginning with November 15, 2014, the Company will provide its REP and VMP plan (the "Plan") to Staff for the following calendar year for Staff's review. The Company will meet with Staff in technical sessions to discuss the Plan, obtain comments, and answer any questions regarding the plan to be implemented for the subsequent calendar year. After review by Staff, the Company will take all reasonable steps it deems appropriate to carry out and implement the Plan, taking into account the comments of Staff. Review by Staff of the Plan does not relieve the Company of its obligation to operate its business and maintain safe, reliable service through expenditures and other capital investments in the ordinary course of business that are not set forth in the Plan, nor does it bind Staff to a particular position regarding the adequacy and/or effectiveness of the Plan.

- b. The Plan shall provide a description of the activities along with targeted expenditures and investments of the proposed Plan to be implemented during the following calendar year. The Plan will itemize the proposed activities by general category and provide budgets for both operation and maintenance ("O&M") expenses and capital investments expected from implementation of the Plan. The O&M budget will be \$1,360,000 (the "Base Plan O&M") for the calendar year ("Base Plan O&M Budget"). The Company may also provide for consideration an alternative Plan with O&M budgets that exceed the O&M Base Amount for the calendar year. The Company will reconcile actual expenditures and investments with the Base Plan O&M amount of \$1,360,000 and shall be subject to the REP/VMP Adjustment Provision, as set forth in Section IV below. All of the combined expenses will be counted against the Base Plan O&M amount, along with any REP-related O&M that does not relate to a VMP category.

IV. **REP/VMP Adjustment Provision**

- a. During each calendar year, the Company shall track all O&M expenses incurred in implementing the components of the REP and VMP Plan. By March 15 of each year, the Company will make a reconciliation filing with the Commission. To the extent that the Company, in implementing the Plan, incurs expenses in an amount less than the Base Plan O&M amount, the difference between the Base Plan O&M amount and the amount of expenses actually incurred shall be refunded to customers or credited to customers for future REP/VMP program O&M expenditures, as the Commission determines is appropriate, with interest accruing at the customer deposit rate.
- b. To the extent the Plan submitted for review prior to the calendar year includes a budget higher than the Base Plan O&M Budget and the Company incurs expenses over the Base Plan O&M amount (consistent with the alternative budget reviewed by Staff), the incremental expense above the Base Plan O&M amount shall be included in rates, subject to Commission approval, through a uniform adjustment factor on a per kilowatt-hour basis and recovered over a twelve month period, commencing for usage on and after May 1, with interest accruing at the customer deposit rate. Any over or under-recoveries at the end of the twelve month period shall be taken into account in the next REP/VMP Adjustment Provision reconciliation period.

V. **REP Capital Investment Allowance**

The REP capital investment target shall be \$1 million annually. The Company shall track all capital investments made in accordance with the REP for each calendar year. At the same time that the Company makes its reconciliation filing for the REP/VMP Adjustment reconciliation, Granite State shall file a report detailing the actual amount of capital investments made in accordance with implementing the REP during the prior calendar year. The report shall include a calculation of the revenue requirement for adding these additional capital investments into rate

base, using the Company's current Commission approved capital structure and debt and equity. Provided that the investments were made in accordance with the REP, the Company will be allowed, subject to Commission approval, a permanent increase in its base distribution rates to recover the annual revenue requirement for those investments. This permanent REP Capital Investment Allowance will take effect for usage on and after May 1, at the same time as any REP/VMP Adjustments are implemented for the preceding calendar year as discussed in Section IV above.

VI. Procedure for Adjusting Base Distribution Rates for the REP Capital Investment Allowance

Base distribution rates shall be increased by the ratio of: (i) the incremental revenue requirement associated with the REP capital investment; and (ii) forecasted base distribution revenue for the prospective year.

VII. Annual Report, Plan Deviations, and SAIDI/SAIFI Results

- a. At the same time the Company makes its reconciliation and rate adjustment filing (by March 15 of each year), the Company will file an annual report on the prior calendar year's activities. In implementing the Plans, the circumstances encountered during the year may require reasonable deviations from the original Plans reviewed by Staff. In such cases, the Company would include an explanation of any deviations in the report. For cost recovery purposes, the Company has the burden to show that any deviations were due to circumstances out of its reasonable control or, if within its control, were reasonable and prudent. Included in the annual report, the Company will report its SAIDI and SAIFI results for the prior calendar year.
- b. The Company shall also report SAIDI/SAIFI results:
 - i. Inclusive of all events identified in items ii, iv and v below;
 - ii. Using the criteria for major storm exclusions set forth by the Commission and IEEE Standard 1366.
 - iii. On a rolling five-year average for each metric in order to minimize the impact of uncontrollable factors;
 - iv. Excluding the effect on performance by supply assets owned by others given the potential impact of transmission on the Company's reliability performance;
 - v. Excluding planned and notified outages from its calculation of SAIDI and SAIFI, and;
 - vi. Consistent with the Puc 300 rules.
- c. The Commission's definition of a major storm qualifying for exclusion from SAIDI and SAIFI reporting is 30 concurrent troubles and 15% of customers interrupted, or 45 concurrent troubles. (Troubles are defined as interruption events occurring on either primary or secondary lines).

Appendix 6

Definitions

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 where practical. 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: (Unplanned Work)

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: (Unplanned Work)

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: 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: (Unplanned work)

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.

Liberty Utilities (Granite State Electric Corp.)
d/b/a Liberty Utilities
Docket No. DE 19-064
Distribution Service Rate Case
Liberty Utilities Set 1 Data Requests

Received: 12/20/2019

Date of Response: 1/10/2020

Request Number: Liberty 1-22

Witness: Jay E. Dudley

Request:

Refer to Bates 61. Please provide the list of tariff changes Staff is proposing but has not provided descriptions of in testimony.

Response:

Staff does not have a list. The tariff changes referred to in my testimony primarily involve non-substantive housekeeping edits that Staff recommends be discussed with Liberty at a future date, before any compliance filing at the conclusion of this docket.

Liberty Utilities (Granite State Electric Corp.)
d/b/a Liberty Utilities
Docket No. DE 19-064
Distribution Service Rate Case
Liberty Utilities Set 1 Data Request

Received: December 20, 2019

Date of Response: January 10, 2019

Request Number: Liberty 1-50

Witness: Kurt Demmer

Request:

Refer to Bates 34, where Mr. Demmer opposes the Company's proposal for "hourly supplemental review fees based on the size of the distribution system," which is consistent with other NH EDCs, and recommends that the issue be resolved in the "interconnection working group."

- a. Please explain why Staff prefers that Liberty's fee structure remain inconsistent with that of the other utilities in New Hampshire?
- b. Please provide the list of dates where the interconnection working group proposed in IR 15-296 have met.
 - i. If the group has not met, when is the first meeting scheduled?

Response:

- a. Staff did not provide any indication of preference of consistency or inconsistency among the New Hampshire utilities regarding interconnection fees. Staff indicated that a working group proposed in the grid mod docket (IR 15-296) is a more appropriate place to discuss statewide interconnection fees.
- b. The working group has not met. Many stakeholders in Docket IR 15-296 have indicated a preference for such a working group, but the working group has not been convened yet.

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Heather Tebbetts

From: Maureen Karpf
Sent: Wednesday, November 15, 2017 3:29 PM
To: tom.frantz@puc.nh.gov; Stachow, Leszek (Leszek.Stachow@puc.nh.gov); richard.chagnon@puc.nh.gov; suzanne.amidon@puc.nh.gov; Dexter, Paul (Paul.Dexter@puc.nh.gov)
Cc: Joel Rivera; Jeff Carney; Charles Rodrigues; Michael Sheehan; Heather Tebbetts; Stephen Hall; Steven Mullen
Subject: Liberty Utilities - CY2018 REP/VMP Plan
Attachments: 5072 2017-11-15 REP VMP Program Plan CY2018.pdf

Good Afternoon,

Consistent with the Settlement Agreement in Docket No. DE 13-063, attached please find Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities' Reliability Enhancement Plan and Vegetation Management Plan for Calendar Year 2018.

Please contact Steve Mullen to arrange a meeting to discuss the plan. Thank you.

Regards,
Maureen

Maureen Karpf | [Liberty Utilities \(New Hampshire\)](#) | Coordinator, Rates & Regulatory Affairs
P: 603-216-3604 | C: 603-327-9844 | E: Maureen.Karpf@libertyutilities.com
15 Buttrick Road, Londonderry, NH 03053

**Reliability Enhancement Plan (REP)
and Vegetation Management Plan
(VMP) for Calendar Year 2018
(January 1, 2018 – December 31,
2018)**

November 15, 2017

**Submitted to:
New Hampshire
Public Utilities Commission Staff**

Submitted by:



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Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
CY2018 REP VMP Proposal
Page 1 of 7

I. Introduction

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities (“Liberty” or the “Company”) hereby submits its proposed Reliability Enhancement Plan (“REP”) and Vegetation Management Plan (“VMP”) for the calendar year 2018 (“CY2018 Plan”). This CY2018 Plan is submitted consistent with the requirements in Attachment F to the Settlement Agreement in Docket No. DE 13-063 (the “Settlement Plan”) that was approved by the Commission in Order No. 25,638 (March 17, 2014), as amended by the Settlement Agreement in Docket No. DE 16-383 that was approved by the Commission in Order No. 26,005 (April 12, 2017). For convenience purposes, a copy of the REP/VMP Program document from DE 13-063 is included as Appendix 5.

Section 1: Proposed O&M Budget

The proposed operating and maintenance (“O&M”) budgets for REP and VMP activities for 2018 are shown in Appendix 1. For calendar year 2018, Liberty proposes to spend \$2,390,000 on O&M expenses related to VMP activities. The VMP O&M spending includes \$539,000 that Liberty will bill to FairPoint for its share of the planned vegetation maintenance work (Appendix 1, column c). As shown on line 14, those reimbursements are subtracted from the total amount of VMP O&M expenses to be recovered, resulting in an adjusted total of VMP O&M expenses of \$1,851,000. This amount exceeds the Base Plan O&M Budget amount of \$1,500,000 by \$351,000. Consistent with Section III.b. of the REP/VMP Program, Liberty is submitting this budget for Staff’s consideration as it exceeds the Base Plan O&M Budget.

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
CY2018 REP VMP Proposal
Page 2 of 7

1 The 2017 VMP Plan budgeted spending provided to Staff on November 15, 2016, is
2 shown in Appendix 1, column (a), for comparison. The Company provides the following
3 explanation of the major cost drivers for 2018 as well as significant differences versus
4 2017.

5 **Vegetation Management Cost Drivers**

6 The primary vegetation management cost drivers for CY2018 in comparison to CY2017
7 are related to the following items. In CY2017, Liberty implemented the first year of the
8 four-year cycle as approved by the Commission in Docket No. DE 16-383. Advantages
9 of a four-year cycle include: minimizing the amount of spot or interim trimming between
10 cycles and reducing the time between cycles provides for earlier detection of dead/dying
11 and weakly attached limbs forming since the last cycle. Broken tree limbs, both alive and
12 dead, are a major cause of tree interruptions on the Liberty system. In addition, a four-
13 year cycle will allow for quicker treatment of trees that have been damaged in storm
14 events and trees with limbs that have heavier foliage especially at the ends of limbs
15 during a good growth year or several good growth years. Thus, it is anticipated that the
16 number of broken tree limbs will decline annually during the cycle resulting in expected
17 reliability benefits. Although growth of tree limbs into the energized space is not a major
18 source of tree-related interruptions on the Liberty system, pruning one growing season
19 sooner minimizes growth and improves safety in areas of reduced or restricted clearances
20 either imposed by property owners or as the result of applying American National
21 Standards Institute (ANSI) A300 pruning standards that may result in less clearance.
22 ANSI A300 is the industry standard for tree care operations: "Tree, Shrub, and Other

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
CY2018 REP VMP Proposal
Page 3 of 7

1 Woody Plant Management-Standard Pruning Practices.” The CY2018 Plan is the second
2 year of the four-year cycle and includes an increase of 30.7 miles of pruning and tree
3 removal over the CY2017 Plan. The CY2018 Plan allows the Company to perform
4 planned work on the four feeders out of the Olde Trolley 18 substation in Salem, New
5 Hampshire.

6 The second cost driver is an increase in the budgeted amount for prescriptive work
7 planning (Work Planners for Veg Plan) from \$224,000 in CY2017 to \$255,000 in
8 CY2018 as a result of moving to a shorter cycle and an increase in plan miles from
9 CY2017 to CY2018. Liberty implemented prescriptive work planning in CY2015 as a
10 means to improve the processes involved with property owner interaction and consent in
11 identifying the necessary work. Use of prescriptive work planning establishes better
12 clearances at the time of pruning, assesses risk trees and reduces that risk through tree
13 removal and identifying opportunities to minimize future work so subsequent cycles will
14 be focused on maintaining those newly established clearances at an anticipated lower
15 future cycle cost.

16 Prescriptive work planning is an industry best practice that is a systematic approach to
17 scheduling vegetation maintenance work around power lines and involves the patrol and
18 inspection of the power line corridor on a span-by-span basis. Under this program,
19 Liberty hires experienced contract foresters with college degrees and accepted industry
20 credentialing to conduct pruning requirements and risk/hazard tree assessments. Liberty
21 performs a 100% compliance audit of prescribed work prior to approving final invoicing
22 for completed circuits. The pruning contractor obtains consent from the property owner

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
CY2018 REP VMP Proposal
Page 4 of 7

1 and performs only the work prescribed that consent has been given for at each location.
2 Prescriptive work planning benefits system reliability by identifying those areas that need
3 to be brought into compliance with the recently revised Puc 307.10 tree trimming
4 standards for clearance, thereby resulting in targeted, reliability focused pruning and tree
5 removal and fewer restricted trims and refusals. Prescriptive work planning benefits
6 customers by providing better clearances and manages reliability risks from hazardous
7 trees in the trim zone and fall in from outside the trim zone. The pruning contractor also
8 benefits from increased work force management efficiencies and productivity. Work
9 planning in CY2017 resulted in no property owner complaints, reduced the number of
10 historical restricted trims and refusals by more than 90%, increased clearances and the
11 number of hazard tree removals. These hazard trees were previously being maintained as
12 trees to trim.

13 The third major cost driver is continued higher costs for providing traffic control for
14 planned tree work and spot work activities with municipal uniformed police details for
15 towns in Liberty's Salem District as compared to using private traffic control companies.
16 The added cost in CY2017 for the Town of Salem, which now requires traffic control on
17 every street, was approximately \$5,000 per mile. This is double the cost in CY2016 and
18 in some cases is more than the cost of performing the planned work. Traffic control
19 provided by third party traffic control companies is \$400 per mile. The estimated
20 \$280,000 costs for CY2018 are similar to the \$292,500 budgeted amount for CY2017
21 mainly because of the higher cost per mile, but for less miles in the Town of Salem and
22 no work in the Town of Pelham for CY2018. The fourth major cost driver is an increase

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
CY2018 REP VMP Proposal
Page 5 of 7

1 in hazard tree removal expenses from CY2017 to CY2018 as a result of significantly
2 more trees being identified and marked for removal on increased miles during the work
3 planning process.

4 **Section 2: Proposed Capital Investment Budget**

5 The Capital Investment Budget for CY2018 is shown in Appendix 2. In addition, the
6 capital budget for CY2017 is shown for comparison under column (b). Liberty has
7 included a capital investment budget of \$1,600,000 reflecting planned capital investment
8 closed to plant as part of its CY2018 plan. This amount includes \$1,500,000 of planned
9 2018 capital investment and \$100,000 of carryover funds for the Bare Conductor
10 Program work from 2017. Carryover occurs from year to year as a result of timing
11 differences due to amounts being closed to plant in the year following when the spending
12 occurred, which is a normal result of the timing involved from when the capital work is
13 performed, completed, invoiced to vendors, and processed through the accounting
14 system. The \$1,500,000 of new capital investment for 2018 equals the targeted annual
15 capital spending level approved in Docket No. DE 16-383. Details about the capital
16 projects proposed for CY2018 are set forth in Appendix 3.

17 In CY2018, one new single phase recloser is targeted for installation. Single phase
18 reclosers target circuit segments that would realize reliability benefits from single phase
19 tripping and reclosing and from isolating faults down to the smallest single phase
20 segment possible. These devices are designed to interrupt circuit segments following a
21 transient or temporary fault condition and then automatically restore the segment after a
22 short period to allow the fault to clear. These devices not only improve reliability of

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
CY2018 REP VMP Proposal
Page 6 of 7

1 service, but also avoid the cost of dispatching a trouble shooter or line crew to the scene
2 to replace the fuse.

3 In addition, over three miles of bare mainline primary conductors are targeted for
4 replacement with spacer cable. Spacer cable is installed in areas prone to tree outages
5 that are too costly to rely on vegetation management practices alone to mitigate feeder
6 lockouts. The application of spacer cable, a covered conductor resistant to tree related
7 outages, significantly improves mainline circuit performance during windy and stormy
8 conditions as well as affording protection against incidental tree-conductor contact at the
9 end of the trim cycle and contact resulting from branches falling from above the trim
10 zone.

11 **Section 3: Future Reconciliation and Determination of Rate Impacts**

12 Liberty will make its CY2018 reconciliation filing with the Commission by March 15,
13 2019, to show actual O&M and capital expenses incurred from implementing the REP
14 and VMP for the CY2018. Actual expenses incurred by Liberty in implementing the
15 O&M components of the annual VMP will be reconciled to the proposed O&M amount
16 of \$1,851,000. In addition, the revenue requirement associated with capital expenditures
17 incurred as part of the REP investment will be included at the same time as the
18 REP/VMP Adjustment Provision for O&M expense is adjusted. At that time, the rate
19 impacts will be determined using actual spending and any over- or under-collection
20 balance that exists at that time.

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
CY2018 REP VMP Proposal
Page 7 of 7

II. Conclusion

Liberty believes that implementation of the REP and VMP programs described in this plan is necessary to ensure that Liberty remains on its current path targeted to maintaining and improving reliability performance. These programs have contributed to actual performance improvement seen in recent years, and Liberty is committed to sustaining this improvement.

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Appendix 1 O&M Expenses

Line	(a) CY 2017 Budgeted Expenses	(b) CY 2018 Budgeted Expenses	(c) CY 2018 Anticipated Fairpoint Credits	Reference
1	<u>VMP O&M</u>			
2	\$ 224,000	\$255,000		Appendix 6
3	\$ 30,000	\$35,000		Appendix 6
4	\$ 30,000	\$35,000		Appendix 6
5	\$ 1,147,803	\$1,230,000		Appendix 6
6	\$ 292,500	\$280,000		Appendix 6
7	\$ 350,000	\$450,000		Appendix 6
8	\$ 30,000	\$40,000		Appendix 6
9	\$ 5,000	\$5,000		Appendix 6
10	\$ 32,500	\$40,000		Appendix 6
11	\$ 140,000	\$20,000		Appendix 6
12			\$539,000	
13	\$ 2,281,803	\$2,390,000		
14	\$ (420,000)	\$ (539,000)		
15	\$ 1,861,803	\$ 1,851,000		
16	\$ 1,861,803	\$ 1,851,000		

Appendix 2

REP Capital Investments - Summary

Line	Projects	(a) 2017 Goal	(b) CY 2017 Capital Investment Budget	(c) 2018 Goal	(d) CY 2018 Capital Investment Budget	Reference
1	Bare Conductor Replacement	3.7 mi	\$ 1,500,000	3.65 mi	\$ 1,450,000	Appendix 3, lines 1-2
2	Single Phase Reclosing Installations	0 Locations	\$ -	1 Location	\$ 50,000	Appendix 3, line 3
3	Single Phase Trip Saver Installations	5 Units	\$ 25,000	0 Units	\$ -	
4	Previous CY Carryover		\$ 100,000		\$ 100,000	Appendix 3, line 4
5	Totals		<u>\$ 1,625,000</u>		<u>\$ 1,600,000</u>	Appendix 3, line 5

(*)

(*) From CY 2017 Plan submitted to Staff on November 15, 2016

Appendix 3

Reliability Enhancement Program Capital Costs

Line	Activities	Project Description	Funding Project Number	Work Order	Estimated Capital Investment to be Booked in CY 2018 (107)
1	1L2 Bare Conductor Replacement Project - Meriden Rd	Replace approximately 1 mile of bare conductors along Meriden Rd with 477 Spacer Cable.	8830-C18603	TBD	\$ 400,000
2	12L2 Bare Conductor Replacement Project - Route 12	Replace approximately 2.65 miles of bare conductors along Route 12 Walpole with 477 Spacer Cable.	8830-C18603	TBD	\$ 1,050,000
3	14L1 Single Phase recloser installation - Dutton Rd - 14L1	Install single phase tripping recloser at Dutton Rd Pelham NH	8830-C24073	TBD	\$ 50,000
4	Budgeted Capital Investment Carryover from previous calendar year				\$ 100,000
5	Totals				\$1,600,000

Appendix 2, line 5,
column (d)

Appendix 4 Vegetation Management Activities

CY 2018			
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	255.54	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
9	Subtransmission Right of Way Clearing	1.18 mi/13.92 ac	See Appendix 6 for definitions
10	Other Police Detail Expenses	As needed	See Appendix 6 for definitions
11	Substation	Feeder	OH Miles - Distribution
12	Lebanon #11	11L2	4.73
13	Lebanon #1	1L3	16.85
14	Monroe #15	15H1	12.56
15	Enfield #7	7L2	42.52
16	Hanover #6	6L4	0.95
17	Barron Ave. #10	10L1	9.74
18	Barron Ave. #10	10L2	7.30
19	Olde Trolley #18	18L3	6.16
20	Olde Trolley #18	18L1	0.03
21	Olde Trolley #18	18L2	8.99
22	Olde Trolley #18	18L4	13.24
23	Vilas Bridge #12	12L1	132.4
24	Charlestown #8	8L2	0.07
25	Total OH_Miles - Distribution		255.54
26	Subtransmission		OH Miles - Subtransmission
27	Monroe 15H1	15H1	1.18 miles/13.92 acres

Annendix

Granite State Electric Company

Reliability Enhancement Program and Vegetation Management Program

Docket No. DE 13-063

I. REP and VMP Commitment

Beginning April 1, 2014 and until the conclusion of the Company's next distribution rate case, the Company will continue its Reliability Enhancement Program ("REP") and a Vegetation Management Program ("VMP") (collectively, the "Program"), as set forth below.

II. Definitions of REP and VMP Activities

- a. Activities included in the REP are the following:
 - i. Spacer Cable Expansion/Bare Conductor Replacement
 - ii. Single Phase Recloser Replacement/Expansion
 - iii. Trip Saver Applications
- b. **Activities and expenses included in the VMP are set forth below:**
 - i. Spot Tree Trimming;
 - ii. Trouble & Restoration Maintenance;
 - iii. Planned Cycle Trimming;
 - iv. Cycle Trimming Police Details Expenses;
 - v. Hazard Tree Removal;
 - vi. Interim Trimming;
 - vii. Tree Planting;
 - viii. Subtransmission Right of Way Clearing; and
 - ix. Other Police Detail Expenses.

III. REP and VMP for FY 2014 and Thereafter

- a. Beginning with November 15, 2014, the Company will provide its REP and VMP plan (the "Plan") to Staff for the following calendar year for Staff's review. The Company will meet with Staff in technical sessions to discuss the Plan, obtain comments, and answer any questions regarding the plan to be implemented for the subsequent calendar year. After review by Staff, the Company will take all reasonable steps it deems appropriate to carry out and implement the Plan, taking into account the comments of Staff. Review by Staff of the Plan does not relieve the Company of its obligation to operate its business and maintain safe, reliable service through expenditures and other capital investments in the ordinary course of business that are not set forth in the Plan, nor does it bind Staff to a particular position regarding the adequacy and/or effectiveness of the Plan.

- b. The Plan shall provide a description of the activities along with targeted expenditures and investments of the proposed Plan to be implemented during the following calendar year. The Plan will itemize the proposed activities by general category and provide budgets for both operation and maintenance ("O&M") expenses and capital investments expected from implementation of the Plan. The O&M budget will be \$1,360,000 (the "Base Plan O&M") for the calendar year ("Base Plan O&M Budget"). The Company may also provide for consideration an alternative Plan with O&M budgets that exceed the O&M Base Amount for the calendar year. The Company will reconcile actual expenditures and investments with the Base Plan O&M amount of \$1,360,000 and shall be subject to the REP/VMP Adjustment Provision, as set forth in Section IV below. All of the combined expenses will be counted against the Base Plan O&M amount, along with any REP-related O&M that does not relate to a VMP category.

IV. REP/VMP Adjustment Provision

- a. During each calendar year, the Company shall track all O&M expenses incurred in implementing the components of the REP and VMP Plan. By March 15 of each year, the Company will make a reconciliation filing with the Commission. To the extent that the Company, in implementing the Plan, incurs expenses in an amount less than the Base Plan O&M amount, the difference between the Base Plan O&M amount and the amount of expenses actually incurred shall be refunded to customers or credited to customers for future REP/VMP program O&M expenditures, as the Commission determines is appropriate, with interest accruing at the customer deposit rate.
- b. To the extent the Plan submitted for review prior to the calendar year includes a budget higher than the Base Plan O&M Budget and the Company incurs expenses over the Base Plan O&M amount (consistent with the alternative budget reviewed by Staff), the incremental expense above the Base Plan O&M amount shall be included in rates, subject to Commission approval, through a uniform adjustment factor on a per kilowatt-hour basis and recovered over a twelve month period, commencing for usage on and after May 1, with interest accruing at the customer deposit rate. Any over or under-recoveries at the end of the twelve month period shall be taken into account in the next REP/VMP Adjustment Provision reconciliation period.

V. REP Capital Investment Allowance

The REP capital investment target shall be \$1 million annually. The Company shall track all capital investments made in accordance with the REP for each calendar year. At the same time that the Company makes its reconciliation filing for the REP/VMP Adjustment reconciliation, Granite State shall file a report detailing the actual amount of capital investments made in accordance with implementing the REP during the prior calendar year. The report shall include a calculation of the revenue requirement for adding these additional capital investments into rate

base, using the Company's current Commission approved capital structure and debt and equity. Provided that the investments were made in accordance with the REP, the Company will be allowed, subject to Commission approval, a permanent increase in its base distribution rates to recover the annual revenue requirement for those investments. This permanent REP Capital Investment Allowance will take effect for usage on and after May 1, at the same time as any REP/VMP Adjustments are implemented for the preceding calendar year as discussed in Section IV above.

VI. Procedure for Adjusting Base Distribution Rates for the REP Capital Investment Allowance

Base distribution rates shall be increased by the ratio of: (i) the incremental revenue requirement associated with the REP capital investment; and (ii) forecasted base distribution revenue for the prospective year.

VII. Annual Report, Plan Deviations, and SAIDI/SAIFI Results

- a. At the same time the Company makes its reconciliation and rate adjustment filing (by March 15 of each year), the Company will file an annual report on the prior calendar year's activities. In implementing the Plans, the circumstances encountered during the year may require reasonable deviations from the original Plans reviewed by Staff. In such cases, the Company would include an explanation of any deviations in the report. For cost recovery purposes, the Company has the burden to show that any deviations were due to circumstances out of its reasonable control or, if within its control, were reasonable and prudent. Included in the annual report, the Company will report its SAIDI and SAIFI results for the prior calendar year.
- b. The Company shall also report SAIDI/SAIFI results:
 - i. Inclusive of all events identified in items ii, iv and v below;
 - ii. Using the criteria for major storm exclusions set forth by the Commission and IEEE Standard 1366.
 - iii. On a rolling five-year average for each metric in order to minimize the impact of uncontrollable factors;
 - iv. Excluding the effect on performance by supply assets owned by others given the potential impact of transmission on the Company's reliability performance;
 - v. Excluding planned and notified outages from its calculation of SAIDI and SAIFI, and;
 - vi. Consistent with the Puc 300 rules.
- c. The Commission's definition of a major storm qualifying for exclusion from SAIDI and SAIFI reporting is 30 concurrent troubles and 15% of customers interrupted, or 45 concurrent troubles. (Troubles are defined as interruption events occurring on either primary or secondary lines).

Appendix 6

Definitions

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 where practical. 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: (Unplanned Work)

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: (Unplanned Work)

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: 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: (Unplanned work)

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.

Heather Tebbetts

From: Heather Tebbetts
Sent: Thursday, November 14, 2019 2:40 PM
To: Frantz, Tom; Chagnon, Richard; Demmer, Kurt; Dexter, Paul (Paul.Dexter@puc.nh.gov); Amidon, Suzanne
Cc: Maureen Karpf; Joel Rivera; Heather Green; Charles Rodrigues; Anthony Strabone; Michael Sheehan; Melissa Samenfeld; Steven Mullen; David Simek
Subject: Liberty Utilities - CY2020 REP/VMP Plan
Attachments: 5072 2019-11-14 REP VMP Program Plan CY2020.pdf

Good Afternoon,

Consistent with the Settlement Agreement in Docket No. DE 13-063, as modified in Docket No. DE 16-383, attached please find Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities' Reliability Enhancement Plan and Vegetation Management Plan for Calendar Year 2020.

We would like to discuss this plan presented with you at your earliest convenience.

Please contact me to arrange a meeting to discuss.

Thank you.

Heather Tebbetts | [Liberty Utilities \(New Hampshire\)](#) | Manager, Rates and Regulatory Affairs
P: 603-216-3563 | C: 603-315-6020 | E: Heather.Tebbetts@libertyutilities.com
15 Buttrick Road, Londonderry, NH 03053

**Reliability Enhancement Plan (REP)
and Vegetation Management Plan
(VMP) for Calendar Year 2020
(January 1, 2020 – December 31,
2020)**

November 15, 2019

**Submitted to:
New Hampshire
Public Utilities Commission Staff**

Submitted by:



1 **I. Introduction**

2 Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities (“Liberty” or the
3 “Company”) hereby submits its proposed Reliability Enhancement Plan (“REP”) and
4 Vegetation Management Plan (“VMP”) for the calendar year 2020 (“CY2020 Plan”).

5 This CY2020 Plan is submitted consistent with the requirements in Attachment F to the
6 Settlement Agreement in Docket No. DE 13-063 that was approved by the Commission
7 in Order No. 25,638 (March 17, 2014), as amended by the Settlement Agreement in
8 Docket No. DE 16-383 that was approved by the Commission in Order No. 26,005 (April
9 12, 2017). For convenience, a copy of the REP/VMP Program document from DE 13-
10 063 is included as Appendix 5 and the definitions are included as Appendix 6.

11 In CY2017, Liberty implemented the first year of the four-year trim cycle as approved by
12 the Commission in Docket No. DE 16-383, with CY2019 being the third year of that
13 initial four-year cycle. Advantages of a four-year cycle include minimizing the amount of
14 spot or interim trimming between cycles, and reducing the time between cycles provides
15 for earlier detection of dead/dying and weakly attached limbs forming since the last cycle.
16 Broken tree limbs, both alive and dead, are a major cause of tree interruptions on the
17 Liberty system. A four-year cycle also allows for quicker identification and treatment of
18 trees that have been damaged in storm events and trees with limbs that have heavier
19 foliage especially at the ends of limbs during a good growth year or several good growth
20 years. Thus, it is anticipated that the number of broken tree limbs will decline annually
21 during the cycle resulting in expected reliability benefits. Although growth of tree limbs
22 into the energized space has not been a major source of tree-related interruptions on the

1 Liberty system, pruning one growing season sooner than the prior five-year cycle
2 minimizes growth and improves safety in areas of reduced or restricted clearances that are
3 imposed either by property owners or as the result of applying American National
4 Standards Institute (ANSI) A300 pruning standards. ANSI A300, titled “Tree, Shrub, and
5 Other Woody Plant Management-Standard Pruning Practices,” is the industry standard for
6 tree care operations. The CY2020 Plan encompasses what will be the fourth year of the
7 initial four-year cycle.

8 As stated above, the transition from a five-year to a four-year trim cycle allows for
9 quicker identification of damaged and hazard trees. As more trees are identified, total
10 costs increase not only for removal of the trees but also for the related traffic control.
11 Given the limits placed on available annual funding since the start of the initial four-year
12 cycle, the Company has more trees marked for removal than there is funding to remove.
13 Additionally, there are a significant number of trees required for removal to increase the
14 side clearance from six feet to the eight-foot side clearance required by Puc 307.10. A
15 request for additional tree removals is being made in the current rate case. In order to
16 meet an anticipated \$850,000 annual cost for tree removals for one full four-year cycle,
17 and given the previously budgeted annual level of approximately \$450,000, there is a
18 request currently pending before the Commission in Docket No. DE 19-064 for an
19 additional \$400,000 annually for four years to provide funding to properly clear the right-
20 of-ways.

21 As provided in the Appendices, the Commission will see that the cost of performing the
22 work has increased. The workforce for tree work and similar trades is suffering and

1 changing significantly, thus the cost to keep a qualified and competent workforce is
2 increasing. The most recent proposals the Company has received to perform tree work
3 have increased in cost more than anticipated. Liberty was shielded from these realities
4 for the past few years because of a multi-year contract. The Company is currently seeking
5 additional quotes and, after reviewing those responses, intends to award the work on or
6 around December 1, 2019. If the bid rates arrive in line with the most recent quote, the
7 Company, along with others seeking such contracts including other electric utilities, are
8 looking at a significant increase in the cost of having the work performed. Recognizing
9 this cost difference, Liberty is putting forth two Operation and Maintenance (“O&M”)
10 budgets in this submittal. Budget Appendix 1A, “Business as Usual,” represents the
11 current proposed costs of performing the routine planned and unplanned work and
12 planned work of 223 miles. Budget Appendix 1B, “Alternate,” represents an alternate
13 plan of performing reduced miles, 175 miles, and adjusting work back to a five-year plan.

14 Given that this filing covers the expected scope of the REP and VMP work to be
15 performed during CY2020, the Company is raising the issue of the increased workforce
16 costs to allow for discussion as to: (a) the scope of work for hazard tree removals to be
17 performed during CY2020; (b) the cost of those tree removals; and (c) the preferred
18 methods for recovery of the related costs.

19 **Section 1: Proposed O&M Budget**

20 The proposed O&M budget for VMP activities for 2020 is shown in Appendix 1A –
21 “Business as Usual.” As stated above, this budget includes a modification in additional
22 funding for hazard tree removals and an increase in prices to perform the work. For

1 calendar year 2020, Liberty proposes to spend \$3,444,000 on O&M expenses related to
2 VMP activities. The VMP O&M spending includes an estimated \$838,880 that Liberty
3 will bill to Consolidated Communications for its share of the planned vegetation
4 maintenance work (Appendix 1A, column e, line 14). As shown on line 15, those
5 reimbursements are subtracted from the total amount of VMP O&M expenses to be
6 recovered, resulting in an adjusted total of VMP O&M expenses of \$2,605,120. Liberty
7 is submitting this budget for Staff's consideration as it exceeds the O&M budget
8 proposed in the rate case by \$660,819.

9 An alternate budget (as described above) is shown in Appendix 1B "Alternate." For
10 calendar year 2020, Liberty proposes to spend \$2,840,690 on O&M expenses related to
11 VMP activities and going back to a five-year cycle. The VMP O&M spending includes
12 \$712,791 that Liberty will bill to Consolidated Communications for its share of the
13 planned vegetation maintenance work (Appendix 1B, column e, line 14). As shown on
14 line 15, those reimbursements are subtracted from the total amount of VMP O&M
15 expenses to be recovered, resulting in an adjusted total of VMP O&M expenses of
16 \$2,127,899. This exceeds the proposed amount of \$1,944,301 in the current rate case by
17 \$183,598. This realizes a reduction to \$360,000 for tree removals from moving back to a
18 five-year cycle and the \$281,690 in workforce increase due to the increased per mile
19 costs. The Company has also requested an additional \$400,000 annually over four years
20 to catch up on hazard tree removals. If we are to go back to a five year cycle, that amount
21 would decrease to \$320,000 annually for five years.

1 **Vegetation Management Cost Drivers**

2 The primary vegetation management cost drivers for CY2020, in comparison to CY2018
3 and CY2019, are workforce costs, tree removals, traffic control, and ROW work.

4 For the proposed “Business as Usual” budget, Appendix 1A:

5 The first and newest driver is the workforce issues and the increased cost to do the work.
6 The industry and workforce of tree work and beyond is experiencing a shift and loss of
7 workforce. The alternate choices for employment are pulling many of the workforce out
8 of the industry, relocating to higher paying locations, or working for other firms in other
9 trades or sectors that provide more stability, value, and stronger relationships with
10 companies and other parties with which they interact. As a result, the cost of retaining a
11 workforce has been increasing. Liberty has been shielded from this industry trend in
12 recent years because the last bid submittal was reviewed in 2016. In attempts to provide
13 stability, Liberty entered into a multi-year contract in 2017. The three-year contract with
14 an option to extend and negotiate came to fruition in 2019. The quote for the extension
15 came in high and negotiation was not a viable option. The Company is seeking alternate
16 quotes for the fourth and last year of the four-year cycle, CY2020.

17 The Company has already experienced these changes through the loss of crews over the
18 last year. In 2018, the contractor was able to keep ten crews on property. In 2019, we are
19 often at seven or eight crews, with losses of long time crews occurring. Workforce
20 retention for tree crews and quality work is a frequent topic of discussion and concern at

1 many utilities. It was the central theme at the 2019 Utility Arborist Association Summit
2 meeting held in April 2019.

3 The Business as Usual budget, Appendix 1A, aligns with our current rate case proposal of
4 performing work on a four-year cycle, including the additional \$400,000 of tree removals
5 in the rate case, and keeping all budget line items aligning to \$1,944,000 target except the
6 Planned Cycle Trimming, which is an additional \$695,000.

7 The second cost driver is the tree removals, which was also a cost driver last year. Tree
8 removal is necessary to move from the previous six-foot side clearance to the new eight-
9 foot side clearance requirement of Puc 307.10 and to potentially decrease the number of
10 future removals of 5-inch to 12-inch diameter trees in subsequent cycles.

11 The work prescription for removal, rather than pruning or allowing the trees to remain in
12 the corridor, is governed by Puc 307.10(c) and the ANSI A300 Part 1 standards. Because
13 of the location of these trees related to the clearance area, pruning is not viable and
14 removal is the appropriate work tool. These tree and limb removals align with best
15 practices in the industry, follow professional standards of arboriculture, reliability
16 concerns, and cost effectiveness.

17 The Company is exposed to higher costs of otherwise private tree removal and “Make
18 Safe” situations. Previously, if the tree work was not within Liberty’s scope of work, we
19 would assist a private tree contractor in making the situation safe for them to work.
20 Changes in the language of the ANSI Z133-2017 Safety Requirements for Arboricultural
21 Operations now limit some tree work such that it can only be performed by the utility.

1 These changes to the ANSI requirements have added the Incidental Line Clearance
2 Contractor status.

3 Under these new standards, if a property owner engaged a trained and skilled private tree
4 care company to perform tree work within close proximity to the wires, there are
5 situations in which that contractor could not perform the work. To say it another way, a
6 contractor qualified to work for a utility and also works in the residential sector has two
7 different abilities of work pursuant to the ANSI standards. If hired by the utility, they
8 have one chart to abide by. When hired by a residential customer, they have another chart
9 to abide by. There are situations where the tree work can only be performed by a
10 contractor hired by the utility. We have already experienced impacts from this change
11 and anticipate it will increase the costs of tree work.

12 The increase in the number of trees identified for removal has almost doubled the annual
13 cost of removal through the work planning process. This increased number of trees to be
14 removed will also significantly increase traffic control costs.

15 The third cost driver in both budgets, similar to last year, is traffic control. The cost of
16 traffic control is directly related to how many tree crews are performing various planned
17 and unplanned maintenance activities and in which municipalities those crews are
18 working. Liberty's Salem district towns of Salem, Pelham, Windham, and Derry
19 continue to require police details and at times require multiple units. Walpole has also
20 recently added additional police traffic control requirements.

1 The fourth cost driver is the cost of Right of Way clearing. Right of Way continues to be
2 a cost driver in both budgets when comparing to the rate case year of 2018. The CY2018
3 right-of-way clearing budget was to cover any spot work needed as a result of foot/aerial
4 surveys. Going forward, Liberty is working to adjust the scheduling of the ROW lines to
5 more evenly spread the work over the next four-year cycles.

6 For the proposed “Alternate” budget, Appendix 1B:

7 The main driver is, again, related to the workforce as described above.

8 The Alternate budget, Appendix 1B, aligns with our current rate case budget of
9 \$1,944,000 with an additional \$360,000 for removals. It does not align with our recent
10 four-year cycle, or 223 miles to be trimmed. Rather, it returns us back to a five-year
11 cycle, or 175 miles of planned cycle trimming. Moving back to a five-year cycle would
12 allow us to complete the mileage and removals necessary for reliability and compliance
13 with Puc 307.10, but at a lower cost.

14 **Section 2: Proposed Capital Investment Budget**

15 The capital investment budget for CY2020 is shown in Appendix 2. The capital budget
16 for CY2019 is also shown for comparison under column (b). Liberty has included a
17 capital investment budget of \$1,600,000, reflecting planned capital investment closed to
18 plant as part of its CY2020 plan. This amount includes \$1,500,000 of planned 2020
19 capital investment and \$100,000 of expected costs for work completed for the Bare
20 Conductor Program in 2019 that will not be recorded until 2020. As a result of timing
21 differences between the project going in service and the closing of the work order,

1 \$100,000 is included in the following year's budget. This is a normal result of the timing
2 involved from when the capital work is performed, completed, invoiced to vendors, and
3 processed through the accounting system. The \$1,500,000 of new capital investment for
4 2020 equals the targeted annual capital spending level approved in Docket No. DE 16-
5 383. Details about the capital projects proposed for CY2020 are set forth in Appendix 3.

6 In CY2020, four miles of bare mainline primary conductors are targeted for replacement
7 with spacer cable. Spacer cable is installed in areas prone to tree outages that are too
8 costly to rely on vegetation management practices alone to mitigate feeder lockouts. The
9 application of spacer cable, a covered conductor resistant to tree related outages,
10 significantly improves mainline circuit performance during windy and stormy conditions,
11 and affords protection against incidental tree-conductor contact at the end of the trim
12 cycle and contact resulting from branches falling from above the trim zone.

13 **Section 3: Future Reconciliation and Determination of Rate Impacts**

14 Liberty will make its CY2020 reconciliation filing with the Commission by March 15,
15 2021, to show actual O&M and capital expenses incurred from implementing the REP
16 and VMP for the CY2020. Actual expenses incurred by Liberty in implementing the
17 O&M components of the annual VMP will be reconciled to the proposed O&M amount
18 of \$1,944,000. In addition, the revenue requirement associated with capital expenditures
19 incurred as part of the REP investment will be included at the same time as the
20 REP/VMP Adjustment Provision for O&M expense is adjusted. At that time, the rate
21 impacts will be determined using actual spending and any over- or under-collection
22 balance that exists at that time.

1 **II. Conclusion**

2 Liberty requests that a budget be agreed upon that is based on the results of the most
3 recent bid. If the bid numbers come in such that budget Appendix 1B is the only
4 approved option, the Company would then return to a five-year cycle. If the Company is
5 to remain on a four-year cycle, budget Appendix 1A would need to be approved.

6 Liberty believes that implementation of the REP and VMP programs described in this
7 plan, particularly including funding at the level of the “Ideal” O&M budget, is necessary
8 to ensure that Liberty remains on its current path targeted to maintaining and continually
9 improving reliability performance. These programs have contributed to actual
10 performance improvements seen in recent years, and Liberty is committed to sustaining
11 that improvement.

Appendix 1A - O&M Expenses

Line	(a) CY2018 Budgeted Expenses	(b) CY2018 Actual Expenses	(c) CY2019 Adjusted Budget Expense	(d) CY 2020 Budgeted Expenses		(e) CY 2020 Anticipated Fairpoint Credits	Reference
1 VMP O&M							
2 Work Planners for Veg Plan	\$ 227,000	\$ 203,159	\$ 213,200	\$ 205,000		\$ 40,180	Appendix 6
3 Spot Tree Trimming	\$ 30,000.00	\$ 34,811.74	\$ 36,900	\$ 37,000			Appendix 6
4 Trouble and Restoration Maintenance	\$ 30,000	\$ 32,078	\$ 36,900	\$ 37,000			Appendix 6
5 Planned Cycle Trimming	\$ 1,120,086	\$ 1,166,655	\$ 980,000	\$ 1,675,000	*	\$ 328,300	Appendix 6
6 Police Detail Expenses - Cycle Trimming & Other	\$ 290,000	\$ 402,083	\$ 400,000	\$ 400,000		\$ 78,400	Appendix 6
7 Hazard Tree Removal - DE 19-064	\$ 400,000	\$ 535,490	\$ 400,000	\$ 400,000		\$ 196,000	Appendix 6
8 (Rate Case Hazard Tree Removals)				\$ 400,000	**	\$ 196,000	
9 Interim Trimming	\$ 30,000	\$ 29,679	\$ 30,000	\$ 30,000			Appendix 6
10 Tree Planting	\$ 5,000	\$ 4,345	\$ 5,000	\$ 10,000			Appendix 6
11 Sub-Transmission Right of Way Clearing	\$ -	\$ -	\$ 205,000	\$ 250,000			Appendix 6
12 Sub-Transmission Right of Way Sideline	\$ 25,000	\$ 14,142	\$ -	\$ -			Appendix 6
13 Total VMP O&M Expenses	\$ 2,157,086	\$ 2,422,443	\$ 2,307,000	\$ 3,444,000			
14 Less: Reimbursements from Consolidated	\$ 480,000	\$ 478,142	\$ 508,267	\$ 838,880		\$ 838,880	
15 VMP O&M Expenses Net of Consolidated Credits	\$ 1,677,086	\$ 1,944,301	\$ 1,798,733	\$ 2,605,120			

*Cycle price came in 40% higher

**Included in Docket No. DE 19-064

Appendix 1B "Alternate" - O&M Expenses

Line	(a) CY2018 Budgeted Expenses	(b) CY2018 Actual Expenses	(c) CY2019 Adjusted Budget Expense	(d) CY 2020 Budgeted Expenses		(e) CY 2020 Anticipated Fairpoint Credits	Reference
1 VMP O&M							
2 Work Planners for Veg Plan	\$ 227,000	\$ 203,159	\$ 213,200	\$ 155,000		\$ 30,380	Appendix 6
3 Spot Tree Trimming	\$ 30,000.00	\$ 34,811.74	\$ 36,900	\$ 36,900			Appendix 6
4 Trouble and Restoration Maintenance	\$ 30,000	\$ 32,078	\$ 36,900	\$ 36,900			Appendix 6
5 Planned Cycle Trimming	\$ 1,120,086	\$ 1,166,655	\$ 980,000	\$ 1,261,690	*	\$ 247,291	Appendix 6
6 Police Detail Expenses - Cycle Trimming & Other	\$ 290,000	\$ 402,083	\$ 400,000	\$ 320,000		\$ 62,720	Appendix 6
7 Hazard Tree Removal	\$ 400,000	\$ 535,490	\$ 400,000	\$ 360,000		\$ 176,400	Appendix 6
8 Hazard Tree Removals - 5 Year Cycle				\$ 320,000	**	\$ 156,800	
9 Interim Trimming	\$ 30,000	\$ 29,679	\$ 30,000	\$ 30,000			Appendix 6
10 Tree Planting	\$ 5,000	\$ 4,345	\$ 5,000	\$ 5,000			Appendix 6
11 Sub-Transmission Right of Way Clearing	\$ -	\$ -	\$ 205,000	\$ 250,000			Appendix 6
12 Sub-Transmission Right of Way Sideline	\$ 25,000	\$ 14,142	\$ -	\$ -			Appendix 6
13 Total VMP O&M Expenses	\$ 2,157,086	\$ 2,422,443	\$ 2,307,000	\$ 2,775,490			
14 Less: Reimbursements from Consolidated	\$ 480,000	\$ 478,142	\$ 508,267	\$ 673,591		\$ 673,591	
15 VMP O&M Expenses Net of Consolidated Credits	\$ 1,677,086	\$ 1,944,301	\$ 1,798,733	\$ 2,101,899			

*Cycle price came in 40% higher, but cost is at 5 year cycle

**Included in Docket No. DE 19-064

Appendix 2

REP Capital Investments - Summary

Line	Projects	(a) 2020 Goal	(b) CY 2020 Capital Investment Budget	(c) 2020 Goal	(d) CY 2020 Capital Investment Budget	Reference
1	Bare Conductor Replacement	3.79 mi	\$ 1,450,000	4 mi.	\$ 1,500,000	Appendix 3, lines 1-2
2	Single Phase Reclosing Installations	None		None	\$ -	
3	Single Phase Trip Saver Installations	6 Units	\$ 50,000	None	\$ -	
4	Previous CY Carryover		<u>\$ 100,000</u>		<u>\$ 100,000</u>	Appendix 3, line 3
5	Totals		<u><u>\$ 1,600,000</u></u>		<u><u>\$ 1,600,000</u></u>	Appendix 3, line 4
			(*)			

(*) From CY 2019 Plan submitted to Staff on November 15, 2018

Appendix 3

Reliability Enhancement Program Capital Costs

Line	Activities	Project Description	Funding Project Number	Work Order	Estimated Capital Investment to be Booked in CY 2020
1	13L3 Bridge St Bare Conductor Replacement	Replace approximately 1.2 miles of bare conductors along Bridge St Salem with 477 Spacer Cable.	8830-2040	TBD	\$ 500,000
2	14L2 Nashua Rd / Burns Rd / Mammoth Rd Bare Conductor Replacement	Replace approximately 1.3 miles of bare conductors along Nashua Rd Pelham, 0.7 miles along Burns Rd Pelham and 0.8 miles along Mammoth Rd Pelham with 477 Spacer Cable.	8830-2040	TBD	\$ 1,000,000
3	Budgeted Capital Investment Carryover from previous calendar year				\$ 100,000
4	Totals				\$1,600,000

Appendix 2, line 5,
column (d)

Appendix 4A - 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	29.65
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		223.78
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 4B - O&M Expenses

CY 2020 Vegetation Management Activities

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	174.76	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			
13			
15			
16	Enfield #7	7L1	78.41
17	Spicket River #13	13L3	29.65
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	174.76
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

Granite State Electric Company
Reliability Enhancement Program and Vegetation Management Program
Docket No. DE 13-063

I. REP and VMP Commitment

Beginning April 1, 2014 and until the conclusion of the Company's next distribution rate case, the Company will continue its Reliability Enhancement Program ("REP") and a Vegetation Management Program ("VMP") (collectively, the "Program"), as set forth below.

II. Definitions of REP and VMP Activities

- a. Activities included in the REP are the following:
 - i. Spacer Cable Expansion/Bare Conductor Replacement
 - ii. Single Phase Recloser Replacement/Expansion
 - iii. Trip Saver Applications
- b. **Activities and expenses included in the VMP are set forth below:**
 - i. Spot Tree Trimming;
 - ii. Trouble & Restoration Maintenance;
 - iii. Planned Cycle Trimming;
 - iv. Cycle Trimming Police Details Expenses;
 - v. Hazard Tree Removal;
 - vi. Interim Trimming;
 - vii. Tree Planting;
 - viii. Subtransmission Right of Way Clearing; and
 - ix. Other Police Detail Expenses.

III. REP and VMP for FY 2014 and Thereafter

- a. Beginning with November 15, 2014, the Company will provide its REP and VMP plan (the "Plan") to Staff for the following calendar year for Staff's review. The Company will meet with Staff in technical sessions to discuss the Plan, obtain comments, and answer any questions regarding the plan to be implemented for the subsequent calendar year. After review by Staff, the Company will take all reasonable steps it deems appropriate to carry out and implement the Plan, taking into account the comments of Staff. Review by Staff of the Plan does not relieve the Company of its obligation to operate its business and maintain safe, reliable service through expenditures and other capital investments in the ordinary course of business that are not set forth in the Plan, nor does it bind Staff to a particular position regarding the adequacy and/or effectiveness of the Plan.

- b. The Plan shall provide a description of the activities along with targeted expenditures and investments of the proposed Plan to be implemented during the following calendar year. The Plan will itemize the proposed activities by general category and provide budgets for both operation and maintenance ("O&M") expenses and capital investments expected from implementation of the Plan. The O&M budget will be \$1,360,000 (the "Base Plan O&M") for the calendar year ("Base Plan O&M Budget"). The Company may also provide for consideration an alternative Plan with O&M budgets that exceed the O&M Base Amount for the calendar year. The Company will reconcile actual expenditures and investments with the Base Plan O&M amount of \$1,360,000 and shall be subject to the REP/VMP Adjustment Provision, as set forth in Section IV below. All of the combined expenses will be counted against the Base Plan O&M amount, along with any REP-related O&M that does not relate to a VMP category.

IV. **REP/VMP Adjustment Provision**

- a. During each calendar year, the Company shall track all O&M expenses incurred in implementing the components of the REP and VMP Plan. By March 15 of each year, the Company will make a reconciliation filing with the Commission. To the extent that the Company, in implementing the Plan, incurs expenses in an amount less than the Base Plan O&M amount, the difference between the Base Plan O&M amount and the amount of expenses actually incurred shall be refunded to customers or credited to customers for future REP/VMP program O&M expenditures, as the Commission determines is appropriate, with interest accruing at the customer deposit rate.
- b. To the extent the Plan submitted for review prior to the calendar year includes a budget higher than the Base Plan O&M Budget and the Company incurs expenses over the Base Plan O&M amount (consistent with the alternative budget reviewed by Staff), the incremental expense above the Base Plan O&M amount shall be included in rates, subject to Commission approval, through a uniform adjustment factor on a per kilowatt-hour basis and recovered over a twelve month period, commencing for usage on and after May 1, with interest accruing at the customer deposit rate. Any over or under-recoveries at the end of the twelve month period shall be taken into account in the next REP/VMP Adjustment Provision reconciliation period.

V. **REP Capital Investment Allowance**

The REP capital investment target shall be \$1 million annually. The Company shall track all capital investments made in accordance with the REP for each calendar year. At the same time that the Company makes its reconciliation filing for the REP/VMP Adjustment reconciliation, Granite State shall file a report detailing the actual amount of capital investments made in accordance with implementing the REP during the prior calendar year. The report shall include a calculation of the revenue requirement for adding these additional capital investments into rate

base, using the Company's current Commission approved capital structure and debt and equity. Provided that the investments were made in accordance with the REP, the Company will be allowed, subject to Commission approval, a permanent increase in its base distribution rates to recover the annual revenue requirement for those investments. This permanent REP Capital Investment Allowance will take effect for usage on and after May 1, at the same time as any REP/VMP Adjustments are implemented for the preceding calendar year as discussed in Section IV above.

VI. Procedure for Adjusting Base Distribution Rates for the REP Capital Investment Allowance

Base distribution rates shall be increased by the ratio of: (i) the incremental revenue requirement associated with the REP capital investment; and (ii) forecasted base distribution revenue for the prospective year.

VII. Annual Report, Plan Deviations, and SAIDI/SAIFI Results

- a. At the same time the Company makes its reconciliation and rate adjustment filing (by March 15 of each year), the Company will file an annual report on the prior calendar year's activities. In implementing the Plans, the circumstances encountered during the year may require reasonable deviations from the original Plans reviewed by Staff. In such cases, the Company would include an explanation of any deviations in the report. For cost recovery purposes, the Company has the burden to show that any deviations were due to circumstances out of its reasonable control or, if within its control, were reasonable and prudent. Included in the annual report, the Company will report its SAIDI and SAIFI results for the prior calendar year.
- b. The Company shall also report SAIDI/SAIFI results:
 - i. Inclusive of all events identified in items ii, iv and v below;
 - ii. Using the criteria for major storm exclusions set forth by the Commission and IEEE Standard 1366.
 - iii. On a rolling five-year average for each metric in order to minimize the impact of uncontrollable factors;
 - iv. Excluding the effect on performance by supply assets owned by others given the potential impact of transmission on the Company's reliability performance;
 - v. Excluding planned and notified outages from its calculation of SAIDI and SAIFI, and;
 - vi. Consistent with the Puc 300 rules.
- c. The Commission's definition of a major storm qualifying for exclusion from SAIDI and SAIFI reporting is 30 concurrent troubles and 15% of customers interrupted, or 45 concurrent troubles. (Troubles are defined as interruption events occurring on either primary or secondary lines).

Appendix 6

Definitions

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 where practical. 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: (Unplanned Work)

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: (Unplanned Work)

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: 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: (Unplanned work)

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.

Liberty Utilities (Granite State Electric Corp.)
d/b/a Liberty Utilities
Docket No. DE 19-064
Distribution Service Rate Case
Liberty Utilities Set 1 Data Requests

Received: 12/20/2019

Date of Response: 1/10/2020

Request Number: Liberty 1-22

Witness: Jay E. Dudley

Request:

Refer to Bates 61. Please provide the list of tariff changes Staff is proposing but has not provided descriptions of in testimony.

Response:

Staff does not have a list. The tariff changes referred to in my testimony primarily involve non-substantive housekeeping edits that Staff recommends be discussed with Liberty at a future date, before any compliance filing at the conclusion of this docket.

Liberty Utilities (Granite State Electric Corp.)
d/b/a Liberty Utilities
Docket No. DE 19-064
Distribution Service Rate Case
Liberty Utilities Set 1 Data Request

Received: December 20, 2019

Date of Response: January 10, 2019

Request Number: Liberty 1-50

Witness: Kurt Demmer

Request:

Refer to Bates 34, where Mr. Demmer opposes the Company's proposal for "hourly supplemental review fees based on the size of the distribution system," which is consistent with other NH EDCs, and recommends that the issue be resolved in the "interconnection working group."

- a. Please explain why Staff prefers that Liberty's fee structure remain inconsistent with that of the other utilities in New Hampshire?
- b. Please provide the list of dates where the interconnection working group proposed in IR 15-296 have met.
 - i. If the group has not met, when is the first meeting scheduled?

Response:

- a. Staff did not provide any indication of preference of consistency or inconsistency among the New Hampshire utilities regarding interconnection fees. Staff indicated that a working group proposed in the grid mod docket (IR 15-296) is a more appropriate place to discuss statewide interconnection fees.
- b. The working group has not met. Many stakeholders in Docket IR 15-296 have indicated a preference for such a working group, but the working group has not been convened yet.