STATE OF NEW HAMPSHIRE BEFORE THE PUBLIC UTILITIES COMMISSION

Docket No. DE 21-XXX

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Calendar Year 2022 Vegetation Management Program (VMP) Plan

DIRECT TESTIMONY

OF

CHRISTOPER STEELE, HEATHER GREEN,

AND

HEATHER M. TEBBETTS

November 15, 2021



Docket No. DE 21-138 Exhibt 1

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1	I.	INTRODUCTION AND BACKGROUND

- 2 Q. Mr. Steele, would you please state your full name and business address?
- 3 A. My name is Christopher Steele and my business address is 15 Buttrick Road,
- 4 Londonderry, New Hampshire.
- 5 Q. By whom are you employed and in what position?
- 6 A. I am employed by Liberty Utilities Service Corp. ("LUSC") as the Senior Director of
- 7 Electric Operations. In that capacity I am responsible for the safe and reliable operation,
- design, and maintenance of the electric system for Liberty Utilities.
- 9 Q. Please describe your educational background.
- 10 A. I received my Bachelor of Science in Electrical Engineering in 2002 from the University
- of South Florida. I received my Master of Business Administration (MBA) with a
- concentration in Corporate Finance & Strategic Management from the University of
- Tampa in 2007. I am a Registered Professional Engineer in the State of Florida and
- recognized as a "Senior" Engineer within the Institute of Electrical & Electronics
- 15 Engineers (IEEE).
- 16 Q. Mrs. Green, would you please state your full name and business address?
- 17 A. My name is Heather Green and my business address is 407 Miracle Mile, Lebanon, New
- Hampshire.
- 19 Q. By whom are you employed and in what position?
- 20 A. I am employed by LUSC as the Program Manager of Inspections and Vegetation. In that
- capacity I support Liberty's Electric Operations and I plan, budget, and manage Liberty's

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vegetation management programs, vendor performance, and storm and regulatory support 1 2 on the distribution and sub-transmission assets. 3 Q. Please describe your educational background. A. I graduated from Purdue University in 1994 with a Bachelor of Science in Forestry with 4 an Urban Option. 5 6 Q. Please describe your professional experience. 7 I joined LUSC in March of 2018. Prior to that I worked for the State of New Hampshire A. Division of Forests and Lands as a Community Forester. I worked in the role of 8 9 Municipal Arborist from 1998–2013 in the Chicago suburbs in both a north shore 10 community of Park Ridge and a south shore community of Oak Lawn. I have also worked for a variety of commercial tree care companies and gardens. 11 I have been active in professional organizations. I recently completed the Board of 12 Directors' Presidential tract for the New England Chapter of the International Society of 13 Arboriculture. I also held a variety of positions on the Illinois Arborist Association 14 Board of Directors, including President. I am a current member of the New Hampshire 15 Community Forestry Advisor Committee. 16 Q. Have you previously testified before the New Hampshire Public Utilities 17 Commission (the "Commission")? 18 A. Yes, I recently testified before the Commission in the Company's Reliability 19 Enhancement Program and Vegetation Management Program ("REP/VMP") 20 reconciliation docket, Docket No. DE 20-036. 21

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1	Q.	Ms. Tebbetts, would you please state your full name and business address?
2	A.	My name is Heather Tebbetts and my business address is 9 Lowell Road, Salem, New
3		Hampshire.
4	Q.	Ms. Tebbetts, please describe your educational background and training.
5	A.	I graduated from Franklin Pierce University in 2004 with a Bachelor of Science degree in
6		Finance. I received a Master of Business Administration from Southern New Hampshire
7		University in 2007.
8	Q.	Please describe your professional background.
9	A.	I joined LUSC in October 2014. Prior to my employment at LUSC, I was employed by
10		Public Service Company of New Hampshire ("PSNH") as a Senior Analyst in NH
11		Revenue Requirements from 2010 to 2014. Prior to my position in NH Revenue
12		Requirements, I was a Staff Accountant in PSNH's Property Tax group from 2007 to
13		2010 and a Customer Service Representative III in PSNH's Customer Service
14		Department from 2004 to 2007.
15	Q.	Have you previously testified before the Commission?
16	A.	Yes, I have testified on numerous occasions before the Commission.
17	II.	PURPOSE OF TESTIMONY
18	Q.	What is the purpose or your testimony?

The purpose of our testimony is to submit the Company's proposed Vegetation

Management Program ("VMP") Plan for the calendar year 2022 ("CY 2022 Plan"). This

CY 2022 Plan is filed consistent with the requirements in Attachment F to the Settlement

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Agreement in Docket No. DE 13-063 that was approved by the Commission in Order No. 25,638 (March 17, 2014), as amended by the Settlement Agreement in Docket No. DE 19-064 that was approved by the Commission in Order No. 26,376 (June 30, 2020). For convenience, a copy of the VMP document from DE 13-063 is included as Appendix 3 and the definitions are included as Appendix 4.

6 III. PROGRAM HISTORY

- 7 Q. Please provide the history of Liberty's current VMP program.
- Since 2007, the Company has continued its Vegetation Management and Reliability 8 A. 9 Enhancement Programs at agreed spending levels subject to annual Commission approval. See Order No. 24,777 (July 12, 2007) (approving the Settlement Agreement in 10 Docket No. DG 06-107), as amended by Order No. 25,638 (March 17, 2014) (approving 11 the Settlement Agreement in Docket No. DE 13-063), as further amended by Order No. 12 26,005 (April 12, 2017) (approving the Settlement Agreement in Docket No. DE 16-383). 13 In general, the VMP includes categories of O&M spending targeted to maintain and 14 improve reliability and performance of the Company's systems. The program is 15 16 premised on the understanding that a certain level of annual spending on O&M activities 17 is necessary to maintain the safety and reliability of the Company's electric distribution system. The most recent Settlement Agreement in Docket No. DE 19-064 provided for 18 an increase to the amount of VMP O&M spending to be included in base rates to 19 20 \$2,200,000, beginning with 2020, with an approved cap of an additional 10 percent. The 21 VMP activities consist of Planned Cycle Trimming Interim, Spot, and Trouble Tree

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Trimming, Work Planning, Traffic Detail, Tree Removal, Tree Planting, and Right of
Way work for the floor and sides of the corridors.

Q. What are the corridor specifications currently under Puc 307.10?

A. The current corridor clearance requirements are 10 feet below the conductors, 8 feet to each side of the nearest conductor, and 15 feet above the conductors, at the time of clearing. In rural areas we seek to obtain the clearance of all capable tree seedlings and lower branches of established trees to minimize future work. In urban areas, where work can be more customer-sensitive, we still seek the same clearance of the rural areas but allow a reduced clearance to address concerns and sensitivities of the adjacent landowner where needed or requested. Thus, in urban areas we leave lower branches under the communication wires, often referred to as a "shelf," when requested or if previously established. We still seek to remove young capable trees in this zone. However, in urban areas, if requested, we may trim the top of that capable brush to leave a requested screening. The result is the acceptable specification for work in an urban setting as depicted in the attachment.

Q. Please explain the funding levels that came about from Docket No. DE 19-064.

A. A request of approximately \$450,000 for additional tree removals was made in the recent rate case in addition to the previously budgeted annual level. In order to meet an anticipated annual cost for tree removals, the Company also made a request for an additional \$400,000 annually for four years to provide funding to properly clear the rights-of-way. However, that amount was not included in the DE 19-064 Settlement

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Agreement, which provided a \$2,200,000 annual VMP budget with allowance of 10% overage, or an annual spending cap of \$2,420,000.

3 Q. What has changed since the signing of that agreement?

- A. In 2019, the Company was notified by Consolidated Communications that it would no 4 longer participate in the shared vegetation maintenance costs, as it was contractually 5 allowed to do, effective in January 2020, meaning a loss of the Consolidated 6 Communication payments applied to the vegetation management program. These 7 anticipated credits were included in the VMP budget computations for 2020 and 2021 8 9 during the Docket No. DE 19-064 proceeding. The loss of the Consolidated amounts reduced funding of \$838,000 for 2020. In order to meet the unexpected deficiency of 10 credits in 2020, the Company deferred 30 miles of planned cycle trimming and most tree 11 removals in 2020. 12
- Additionally, the cost of performing the work has increased and the workforce is less available. The Company will provide further information below on these issues.

Q. Is the current funding adequate to fully fund a four-year cycle?

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16 A. No. The current maximum allowance of \$2,420,000 does not fully fund Liberty's

17 required four-year trim cycle nor its ability to meet Puc 307.10's requirement to increase

18 side clearance from six-feet to eight-foot. The Company has presented a budget in this

19 filing consistent with the requirements to meet the mandated four-year cycle per the

20 Settlement Agreement and the side clearance requirements of Puc 307.10. The

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Company's funding requirement to meet a four-year trim cycle is \$5,471,624 for CY 1 2022. 2 The Company continues to believe that a four-year trimming cycle is desirable in New 3 Hampshire. However, the Company also recognizes that maintaining a four-year 4 trimming cycle is currently cost prohibitive to its customers given current economic 5 6 conditions. IV. 7 CONTINUOUSLY INCREASING VEGETATION MANAGEMENT COSTS What are the primary factors for increased vegetation management costs? 8 Q. 9 A. There are many factors which contribute to the increase in required funding for the 10 Company to continue to provide safe and reliable electricity to its customers. The first 11 driver is the loss of payments from Consolidated Communications for joint pole ownership vegetation management, as described above. This loss represents 12 approximately 20–24% of the total VMP budget and results in either an overall project 13 14 reduction, or increased costs to do business of about 20%. The second driver is the deferred work. In order to meet the unexpected deficiency of 15 Consolidated Communications payments, in 2020 the Company deferred 30 miles of 16 planned cycle trimming and the majority of tree removals. In 2021 the Company 17 deferred an additional 74 miles to 2022 as a result of the VM contract issues and 18 19 subsequent workforce issues in 2021. The third driver is workforce issues and the increased cost to do the work. The tree care 20 industry, as with many other trades, continues to experience a shift and loss of workforce 21

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in general. The effect of the COVID-19 pandemic has added to this already struggling workforce. The alternate choices for employment are pulling many out of the industry, relocating some to higher paying locations, or to work for other firms in other trades or sectors that provide more stability, value, and stronger relationships with companies and other parties with which they interact. As a result, the cost of retaining a workforce has been increasing. Liberty had been shielded from this industry trend in recent years because of multi-year contracts that were in place but have since expired. The Company was experiencing loss of crews prior to the pandemic. In 2018, the contractor was able to keep ten crews on property. In 2020, we had seven or eight crews on property, with losses of long-time crews occurring. Currently in 2021 the contractor has difficulty keeping six crews on property. Liberty's VM contractor was not able to establish a consistent local crew and had a rotation of crews when on property that generally did not exceed three crews at a time. Workforce retention for tree crews and the quality work is a frequent topic of discussion and concern at many utilities. It continues to be the theme in various presentations by industry groups. A systemic issue within the VM industry is the inability for tree contractors to take on new clients to help fill voids of need when inquiries were made of others. The workforce issue is limited to New Hampshire, New England, or East Coast phenomenon. It is nation-wide. Potential applicants are not responding to job opportunities as currently posted – regardless of reputation of company, scope of work, location, and pay.

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The fourth cost driver is the quantity of tree removals, which continues to be a significant 1 cost driver as seen in previous years. We have three types of removals: Fall-In, Grow-2 In/Corridor Creation, and Make Safe. 3 Prior to implementation of Puc 307.10, most of the tree removals were Fall-In risks. 4 These trees had a separate budget line item. The corridor was fairly established, and unit 5 price trees started at 9" Diameter at Breast Height (DBH) (diameter of a tree at four and 6 half feet from ground). After the Commission changed the corridor through Puc 307.10, 7 Liberty was required to expand its side clearance from six to eight feet, so the quantity of 8 9 Grow-In/Corridor Creation trees was well beyond the quantity and scope that could be achieved with the allocated funds. The result of this to Liberty and its customers is the 10 inability to achieve the 8'corridor given current funding. 11 Tree removal is necessary to move from the previous six-foot side clearance to the new 12 eight-foot side clearance requirement of Puc 307.10 and to potentially decrease the 13 14 number of future removals of five-inch to twelve-inch diameter trees in subsequent cycles. 15 O. What is the best way to achieve the requirements of Puc 307.10? 16 The requirement to remove, rather than prune or allowing the trees to remain in the 17 A. corridor, is governed by Puc 307.10(c) and the ANSI A300 Part 1 standards. Because of 18 19 the location of these trees within the eight-foot clearance area, pruning is not viable and removal is the appropriate work tool. These tree and limb removals align Puc 307.10, 20

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with best practices in the industry, follow professional standards of arboriculture, reliability concerns, and are cost effective.

- 3 Q. Please describe any rules that have increased the cost of vegetation management.
- A. The ANSI Z133-2017 standard created additional situations that require the System

 Operator, the utility, to clear trees in a certain area, increasing our Make Safe removal

 costs. This standard also exposed the Company to higher costs of otherwise private tree

 removal and "Make Safe" situations.

Previously, if Liberty's scope of work did not require the tree work, we would assist a private tree contractor in making the situation safe for them to perform the work.

Changes in the language of the ANSI Z133-2017, Safety Requirements for Arboricultural

Operations, now limit some tree work such that it can only be performed by the utility.

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

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1	Q.	Does the increase in Tree Trimming Costs and less miles trimmed lead to any other
2		subsequent events?
3	A.	Yes. As we are reducing the number of trees that we are actively removing, we are
4		leaving behind more trees that require our assistance to the tree owner in managing them
5		safely. These additional costs will be seen in future customer requests or Spot Tree
6		Trimming in the budget.
7		The increase in the number of trees identified for removal has almost doubled the annual
8		cost of removal through the work planning process. This increased number of trees to be
9		removed will also significantly increase traffic control costs.
10		The fifth cost driver, similar to last year, is traffic control. The cost of traffic control is
11		directly related to how many tree crews are performing various planned and unplanned
12		maintenance activities and in which municipalities those crews are working. Liberty's
13		Salem district towns of Salem, Pelham, Windham, and Derry continue to require police
14		details and at times require multiple units. Walpole has also recently added additional
15		police traffic control requirements. With the increased mileage needed to be performed
16		in 2022, we will have correlating traffic control needs. It is important to note that this
17		workforce is also suffering workforce issues and has difficulties in meeting supply.
18		These supply issues can impact our abilities and plans.
19		The sixth cost driver is the cost of Right of Way (ROW) maintenance. Going through the
20		second four-year cycle allowed the Company to adjust the scope of work to obtain
21		improved corridor maintenance, improved site line, and reduced vegetation contact

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potential. The Company is now able to mow the supply ROW lines to provide the muchneeded site line visibility. This activity also prepares the corridors for Integrated Vegetation Management (IVM) of a variety of sustainable and cost-effective techniques as we move through the upcoming cycles of work. The 2022 budget includes plans to reinstate the selective herbicide treatment that National Grid previously incorporated into the VM program prior to Liberty ownership of the Company. Selective herbicide applications will be one of many necessary methods of addressing the ROW in the future. The 2022 budget does not have mowing or sideline work for the ROW. We had adjusted most of the 2022 and 2023 ROW clearing and side work to be performed in the CY2021 to accommodate workforce availability and needs. Additionally, much of the Salem area ROWs were moved as part of the 2020 ROW maintenance and preparation of the 115KV supply line. The result is that we have a small budget for spot or emergency work to perform along the ROWs in 2022. The majority of budget allocation is for an herbicide and IVM programing.

V. **LOSS OF CONTRACTOR IN CY 2021**

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- Was the Company able to procure services for vegetation management at the 16 Q. 17 approved funding level for the second four-year trim cycle?
- A. Yes. In 2020, the Company went to bid for its current four-year cycle and this contract 18 was awarded to Clearway Industries. The Company thus moved forward in 2021, the 19 20 start of the second four-year cycle, with Clearway. Clearway pricing was favorable and allowed the Company to continue to trim trees within the allocated and set \$2,420,000. 21 22
 - Clearway was new to the Company's system but performed positively with work

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assigned to them in 2020. As their per-mile costs came in under the current costs, the 1 Company was able to continue with the four-year plan. Unfortunately, Clearway 2 defaulted on the contract with the Company in March 2021. Clearway simply walked off 3 the job, citing the inability to meet payroll, leaving the Company without a contractor. 4 What did the Company do to mitigate the effects of Clearway leaving the property? Q. 5 A. To mitigate the impacts of Clearway Industries leaving, Asplundh and Davey Tree were 6 contracted to complete the year's trimming requirements. 7 Q. Please explain where the Company is as of the date of this filing with its trim cycle. 8 9 A. The Company moved forward with the next lowest bid, Asplundh, which is above the 10 \$2,420,000 recovery allocation. (All bids except Clearway's came in at 36–52% higher costs than the 2019 cost experience.) Asplundh's transition took time in pulling 11 resources back from areas of reallocation. Some crews and resources were no longer 12 available, retired, out of workforce, or out of area, and Asplundh charged an additional 13 14 6.25% to reallocate the resources and to come to contractual agreements. Asplundh and Davey are only expected to accomplish the trimming of 90 miles of the Company's 15 planned mileage of approximately 234 miles. 16 Although the local Asplundh crews have transitioned back onto the property and are 17 performing work successfully, Asplundh continues to have difficulty in meeting their 18 19 contractual obligations related to workforce in the Northeast, so they had difficulty providing additional crews. Fortunately, an opportunity to use non-local Asplundh crews 20

for capital work arose and, once that work was completed, the Company utilized them to

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perform maintenance trimming. However, the non-local crews were inefficient and 1 ineffective and were released. 2 The Company was able to secure local specialized off-road crews to complete trimming 3 of our off-road supply lines. Additional work was moved forward from future years to 4 this year to accommodate workforce availability and needs. 5 6 The Company continues to look toward various mechanical options of vegetation 7 management control. As stated above, the Company was able to use machines on the ROW supply line for the mowing and were able to provide quality, compliant work in a 8 short amount of time, allowing for more work to be done. 9 Davey: Chippers, a Davey Company, was the other bidder in 2020. Although they were 10 11 the highest bidder, Davey submitted competitive prices for the balance of the 2021 miles that were not expected to be completed. They committed to completing up to 30 miles of 12 the remaining 2021 miles. They are currently transitioning onto the property to perform 13 additional work as workforce allows. 14 During the transition in CY2021, Davey also filled in for many emergency and storm 15 16 related needs. Davey has a separate emergency Storm Response contractual agreement with the Company. 17 18 Q. When did Davey start to trim for Liberty and how many miles have they trimmed? Although the Company was in negotiations with Davey for a storm agreement starting in 19 A. February 2021, and maintenance miles discussion started back in June 2021, Davey was 20 not able to get on the property until November 15, 2021. 21

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1 **VI.** <u>CY 2022 PLAN</u>

- 2 Q. What is the Company proposing for costs in 2022 to achieve its trimming needs?
- A. The O&M costs for VMP activities in 2022 is shown in Appendix 1. As stated above, the 3 costs include accommodations for the loss of monetary contribution from Consolidated 4 Communications, the increased costs of workforce, the lack of workforce, the current 5 costs to perform the vegetation management work and meet a four-year cycle. For 6 7 calendar year 2022, Liberty identifies a cost of \$5,471,624 on O&M expenses related to the activities (Appendix 1, column c, line 17) to continue with a four-year cycle and catch 8 up on 2020 and 2021 deferred miles for a total of 276 miles. However, the Company is 9 committed to spending a total of \$3,069,639, of which \$2,420,000 will come from rates 10 and the additional \$649,639 will come from earnings and expects to take the increased 11 costs and funding issue up during its next rate case. This will allow the Company to 12
- 14 Q. Please provide the cost per mile.

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- 15 A. The approximate cost per mile for 2022 is \$15,370 (\$5,471,624 / 356) because of the
 16 economies of scale when trimming 356 miles versus 153. However, given the approved
 17 allotment of funds in the Settlement Agreement, the Company is only able to recover for
 18 approximately 153 miles which increases the per mile cost because those economies of
 19 scale are not possible.
- 20 Q. Did the Company have other matters for 2022?

complete 162 miles of trimming in 2022.

21 A. Yes. The Company has also included the following items in Appendix 1:

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- Spot tree trimming/removals: \$15,000, single trees found that may need removal or trimming outside of planned cycle trimming;
 - Herbicide treatment: \$69,210, most of the supply lines have been mowed so the
 Company is treating these sub-transmission areas with herbicide for efficient
 maintenance of the corridor;
 - Pollinator program: \$5,000, planting vegetation that does not conflict with conductors whereby pollinators such as butterflies and bees pollinate low-growing flowering plants so other types of vegetation is unable to grow in the area;
 - Biodiversity: \$19,840 participate in the biodiversity identification program that other Liberty regions are also participating;
- The Company has also included the following item in line 7 of Appendix 1, Planned

 Cycle Trimming:
 - Ai-Dash: The company has entered into a Pilot program to investigate the value of
 Satellite imagery and artificial intelligence to assist in identifying condition of the
 system as it related to vegetation and consider Condition Based Management
 viability. The total cost is \$15,000.

VII. <u>CONCLUSION</u>

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- 18 Q. Please provide a summary of your testimony.
- 19 A. Liberty requests that a budget be agreed upon as presented at \$3,069,639. Liberty
 20 believes that implementation of the vegetation management programs described here,
 21 particularly including funding at the level exceeding the existing O&M budget, is

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necessary to ensure that Liberty remains on its current path targeted to maintaining and continually improving reliability performance, perform industry best practices, and compliance with Puc 307.10. These programs have contributed to actual performance improvements seen in recent years, and Liberty is committed to sustaining that improvement. Liberty's full program costs should be recognized by the Commission as recoverable in future discussions.

- 7 Q. Does this conclude your testimony?
- 8 A. Yes.

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Appendix 1 - O&M Expenses

			CY 2022		CY 2022
		Fu	lly Funded	ı	Proposed
Line	_		Expenses		Expenses
1	Deferred Miles		-		203
2	Planned Miles		356		153
3	VMP O&M				
4	Work Planners for Veg Plan	\$	432,400	\$	350,750
5	Spot Tree Trimming	\$	31,000	\$	40,000
6	Trouble and Restoration Maintenance	\$	40,000	\$	60,000
7	Planned Cycle Trimming	\$	3,475,894	\$	1,665,839
8	Police Detail Expenses - Cycle Trimming & Other	\$	507,840	\$	299,000
9	Hazard Tree Removal	\$	811,440	\$	452,000
10	Interim Trimming	\$	33,000	\$	62,000
11	Tree Planting	\$	11,000	\$	11,000
12	Sub-Transmission Right of Way Clearing	\$	109,050	\$	109,050
13	Sub-Transmission Right of Way Sideline	\$	-	\$	-
14	Make Safe Removals	\$	20,000	\$	20,000
15	Total VMP O&M Expenses	\$	5,471,624	\$	3,069,639
16	Less: Reimbursements from Consolidated	\$	-	\$	-
17	VMP O&M Expenses Net of Consolidated Credits	\$	5,471,624	\$	3,069,639

Appendix 2 - O&M Expenses CY 2022 Vegetation Management Activities

Line	Activities	Reference
1	Spot Tree Trimming	See Appendix 3 for definitions
2	Trouble and Restoration Maintenance	See Appendix 3 for definitions
3	Planned Cycle Trimming	See Appendix 3 for definitions
4	Cycle Trimming Police Detail Expenses	See Appendix 3 for definitions
5	Hazard Tree Removal	See Appendix 3 for definitions
6	Enhanced Hazard Tree Removal	See Appendix 3 for definitions
7	Interim Trimming	See Appendix 3 for definitions
8	Tree Planting	See Appendix 3 for definitions
9	Subtransmision Right of Way Clearing	See Appendix 3 for definitions
10		
11	Substation	OH Miles - Distribution
12	Spicket River #13	29.06
13	Spicket River #13	1.000
_	Spicket Mivel #15	16.29
14	Pelham #14	28.65
	·	
14	Pelham #14	28.65
14 15	Pelham #14 Villas Bridge #12	28.65 55.22
14 15 16	Pelham #14 Villas Bridge #12 Mount Support #16	28.65 55.22 3.72
14 15 16 17	Pelham #14 Villas Bridge #12 Mount Support #16	28.65 55.22 3.72 20.00
14 15 16 17 18	Pelham #14 Villas Bridge #12 Mount Support #16 Lebanon #1	28.65 55.22 3.72 20.00 152.93

Granite State Electric Company

Reliability Enhancement Program and Vegetation Management Program

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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.

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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

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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. <u>Procedure for Adjusting Base Distribution Rates for the REP Capital Investment Allowance</u>

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).

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.

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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.