



**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

**DIRECT TESTIMONY**

**OF**

**HEATHER GREEN**

**AND**

**HEATHER M. TEBBETTS**

April 30, 2019

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## **I. INTRODUCTION AND BACKGROUND**

**Q. Mrs. Green, would you please state your full name and business address?**

3 A. My name is Heather Green and my business address is 407 Miracle Mile, Lebanon, New  
4 Hampshire.

**5 Q. By whom are you employed and in what position?**

6 A. I am employed by Liberty Utilities Service Corp. (“Liberty”) as the Program Manager of  
7 Vegetation and Inspections. In that capacity I support Electric Operations and I plan,  
8 budget, and manage Liberty Utilities (Granite State Electric) Corp.’s (“Granite State” or  
9 “the Company”) inspection and vegetation management programs, vendor performance,  
10 and storm and regulatory support on the distribution and sub-transmission assets.

11 Q. Please describe your educational background.

12 A. I graduated from Purdue University in 1994 with a Bachelor's Degree of Science in  
13 Forestry with an Urban Option.

14 Q. Please describe your professional experience.

15 A. I joined Liberty in March 2018. Prior to that I worked for the State of New Hampshire  
16 Division of Forests and Lands as a Community Forester. I worked in the role of  
17 Municipal Arborist from 1998–2013 in the Chicago suburbs in both a north shore  
18 community of Park Ridge and a south shore community of Oak Lawn. I have also  
19 worked for a variety of commercial tree care companies and gardens.

20 I have been very active in professional organizations. I currently sit on the Board of  
21 Directors as the President Elect for the New England Chapter of the International Society

1 of Arboriculture. I also held a variety of positions on the Illinois Arborist Association  
2 Board of Directors, including President. I am a current member of the New Hampshire  
3 Community Forestry Advisory Committee.

4     **Q.**    Have you previously testified before the New Hampshire Public Utilities  
5               Commission (the “Commission”)?

6 A. Yes, I recently testified before the Commission in the Company's Reliability  
7 Enhancement Program and Vegetation Management Program ("REP/VMP")  
8 reconciliation docket, Docket No. DE 19-051.

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

10 A. My name is Heather M. Tebbetts and my business address is 15 Buttrick Road,  
11 Londonderry, New Hampshire. I am Manager of Rates and Regulatory Affairs for  
12 Liberty, which provides services to Granite State and, in this capacity, am responsible for  
13 providing rate and regulatory related services for the Company.

14 Q. Please describe your educational background and training.

15 A. I graduated from Franklin Pierce University in 2004 with a Bachelor of Science degree in  
16 Finance. I received a Master's of Business Administration from Southern New  
17 Hampshire University in 2007.

**18 Q. Please describe your professional background.**

19 A. I joined Liberty in October 2014. Prior to my employment at Liberty, I was employed by  
20 Public Service Company of New Hampshire (“PSNH”) as a Senior Analyst in NH  
21 Revenue Requirements from 2010 to 2014. Prior to my position in NH Revenue

1 Requirements, I was a Staff Accountant in PSNH's Property Tax group from 2007 to  
2 2010 and a Customer Service Representative III in PSNH's Customer Service  
3 Department from 2004 to 2007.

4 **Q. Have you previously testified before the Commission?**

5 A. Yes, I have testified on numerous occasions before the Commission.

6 **II. PURPOSE OF TESTIMONY**

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

8 A. The purpose of our testimony is to request modifications to Granite State's Vegetation  
9 Management Program ("VMP"). These modifications include: (1) using the test year  
10 level of vegetation management costs as the base level of operations and maintenance  
11 ("O&M") costs rather than the current \$1,500,000 base amount; and (2) providing for  
12 supplemental spending for a limited period of time to address and meet the requirements  
13 of the Puc 300 rules with regards to clearances and removal of high risk trees, along with  
14 healthier customer relationships for removing trees.

15 **III. CURRENT VMP PROGRAM**

16 **Q. Please provide an overview of Granite State's current VMP program.**

17 A. Since 2007, the Company has continued its Vegetation Management and Reliability  
18 Enhancement Programs at certain levels of base rate funding and targeted capital  
19 spending levels subject to annual Commission approval. *See Order No. 24,777 (July 12,*  
20 *2007) (approving the Settlement Agreement in Docket No. DG 06-107), as amended by*  
21 *Order No. 25,638 (March 17, 2014) (approving the Settlement Agreement in Docket No.*

1 DE 13-063), as further amended by Order No. 26,005 (April 12, 2017) (approving the  
2 Settlement Agreement in Docket No. DE 16-383). In general, the VMP includes  
3 categories of O&M spending targeted to improve reliability performance. The program  
4 is premised on the understanding that a certain amount of annual spending on O&M  
5 activities is necessary to maintain the safety and reliability of the Company's electric  
6 distribution system. The most recent Settlement Agreement in Docket No. DE 16-383  
7 provided for an "...increase to the amount of VMP O&M spending included in base rates  
8 to \$1,500,000 for 2017 and continuing until changed in a subsequent rate case."<sup>1</sup> The  
9 VMP activities consist of Planned Cycle, Interim, Spot, and Trouble Tree Trimming,  
10 Work Planning, Traffic Detail, Tree Removal, Tree Planting, and Right of Way work for  
11 floor and side. As will be described later in testimony, the Company is proposing to  
12 change the amount of VMP O&M spending included in base rates.

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

14 A. The current corridor requirements for clearances stated in Puc 307.10 are 10 feet below  
15 the conductors, 8 feet to the side of the nearest conductor, and 15 feet above the  
16 conductors, at the time of clearing.<sup>2</sup> Please see Attachment HG/HT-1 for diagrams  
17 depicting the clearance specifications. In rural areas we seek to obtain the clearance of  
18 all capable tree seedlings and lower branches of established trees to minimize future  
19 work. In urban areas, where work can be more customer-sensitive, we still seek the same

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<sup>1</sup> See Docket No. DE 16-383, Exhibit 20 at Bates 010.

<sup>2</sup> "Puc 307.10 Tree-Pruning Standards. (a) With the land-owner's 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."

1 clearance as the rural areas, but allow a reduced scope of work out of sensitivities for the  
2 adjacent land owner where needed or requested. In urban areas we leave lower branches  
3 under the communication wires, often referred to as a “shelf”), when requested or if  
4 previously established, although we still seek to remove young capable trees in this zone.  
5 However, in urban areas, if requested, we may trim the top of that capable brush to leave  
6 a requested screening. The result is the acceptable specification for work in an urban  
7 setting depicted in the attachment.

8 **Q. Please describe how the Company views the maintained and unmaintained areas for  
9 tree removals.**

10 A. The diagram in Attachment HG/HT-2 provides a view of where trees may be growing in  
11 the zone that could affect distribution system assets if they are not removed. Pruning of  
12 the trees, rather than removing them, may create unpleasing aesthetics and cause the tree  
13 to become unstable, unhealthy, and/or may eventually die, which then creates more cost  
14 to remove them at a later date. By removing the trees in the zone shown in Attachment  
15 HG/HT-2, these issues are avoided.

16 **IV. NECESSITIES OF TREE REMOVALS FOR CLEARANCE, RISK, AND**  
17 **CUSTOMER SERVICE**

18 **Q. Please describe why tree removals for clearance reasons are necessary to maintain a  
19 clear corridor.**

20 A. Generally, we need to maintain the clearance corridor. In normal routine operations, we  
21 are going to encounter new trees growing in this corridor or trees that were not approved

1 for removal in the past, but are approved by the landowner at this cycle visit. However,  
2 because of the Puc 307.10 rule that was implemented in 2014, we are encountering a  
3 significant increase of these types of trees requiring removal. Given our four-year trim  
4 cycle that began in 2017, compliance with Puc 307.10 is essentially equivalent to creating  
5 an additional 2-foot wide, 225-mile construction corridor every year for four years  
6 because Puc 307.10 requires greater clearance than was Granite State's longstanding  
7 prior practice.

8 Prior to the implementation of the tree pruning standards of Puc 307.10, Granite State had  
9 a smaller corridor that was six feet wide versus the eight foot width required by the new  
10 rule. In order to meet the clearance standards of Puc 307.10, at a minimum, an increased  
11 two-foot width throughout the territory would need to be achieved. In some cases where  
12 we were unable to previously achieve the six-foot width, we would need more than a  
13 two-foot increase. This is beyond the scope of "flat cutting," or where the contractor will  
14 ground cut any new growth capable of growing into the wires and clearance area from  
15 around the poles, guy wires, and fences within the maintained areas as part of the cycle  
16 trim task, and is heavily variable in work load as these trees can be anywhere from one  
17 inch to more than two feet in diameter. The task of achieving the greater clearance thus  
18 falls mostly under the "tree removal" line item rather than "cycle pruning." It is an  
19 objective of Liberty Utilities' VMP to continually strive to reduce the number of under-  
20 wire tree and branch growth that will continually require pruning by removing as many  
21 stems and growth as possible during each cycle trim.

1 Eversource and Utilil had the eight-foot corridor width prior to the implementation of  
2 Puc 307.10 and, as a result, their small (diameter breast height up to 12") clearance  
3 related trees are included in the cycle trim/brush cutting line item as routine work, not as  
4 creating a new corridor or as additional removals. Such increased corridor tree removals,  
5 therefore, are not realized in their tree removal budget line items.

6 **Q. Does pruning trees rather than removing trees create negative implications for the  
7 program?**

8 A. Yes. By not having the funds for the more expensive "removals," and yet having the Puc  
9 307.10 mandate, it encourages pruning, which is a short-sighted solution that is not  
10 considered professional or aesthetically desired. The cost for pruning is a set price as  
11 Liberty contracts for the cost in advance. The cost for tree removal is an additional cost  
12 to the pruning. Given the increased cost for tree removals, the Company is attempting to  
13 meet Puc 307.10 through pruning, which is often successful over the short term.  
14 However, if the Company were to prune a greater portion of a tree that adversely affected  
15 the health or structure, or upset the tree owner, it is best practice to remove that whole  
16 tree. If we focused solely on the short term cost, we would be forced to execute actions  
17 that are not professional and it would cost more in the long term as pruning would leave a  
18 tree that would have to be removed in the future. In the case where it is due to a  
19 customer request or refusal to remove the tree, there is no choice but to prune the tree.  
20 However, if the customer is not limiting the work, we should be able to follow  
21 professional best practices. Otherwise, we would be creating situations where trees  
22 would be pruned to the point of damage in health and/or structure.

1      **Q. Does pruning trees that should otherwise be removed create problems in terms of**  
2      **risk and liability?**

3      A. Yes. Pruning, when we should be removing, will create future risk and liability with  
4      respect to the Company's distribution system assets or other potential targets on private  
5      property. Vegetation management practices that focus on costs before best practices also  
6      create situations of poor customer relations in that the Company would either damage a  
7      customer's trees or cause them to be unsightly by mere pruning. In addition to being in  
8      an unfavorable position with customers, the Company would also be at risk of losing  
9      future permission to perform cycle pruning. If the customer would prefer the tree to be  
10     removed and removal would be the preferred/best practice, then that should be the  
11     resolution. As these trees grow, the costs for their future removal increases  
12     exponentially, which increases future budget needs. Removing small 5–8-inch and 9–12-  
13     inch diameter trees found in the corridor and at the edge of the corridor are good  
14     investments for eliminating future work at minimal operational costs, aesthetic costs, and  
15     provide for better current and future customer relations. If the tree is of good health, and  
16     it is over-pruned to achieve the clearance, the result could be significantly unstable and  
17     poorly attached sprouts with growth that will require more pruning work in the future,  
18     with potential increases in pruning costs. By not pruning or removing these trees to meet  
19     this clearance, we are not in compliance with Puc 307.10. We are currently deferring  
20     removals for the future at a higher cost to the program, so the Company is requesting  
21     additional funding to eliminate the deferral backlog.

- 1      **Q.    Do you keep an inventory of the trees that need to be removed?**
- 2      A.    Yes. We are able to locate, log, and address a thorough inventory of clearance trees  
3                  through the use of trained work planners. This check and balance allows us to identify  
4                  and eliminate future work, especially along the corridor edge. For example, a tree  
5                  growing out of the ground just outside the corridor, but with all the energy of the canopy  
6                  heading straight toward the energized lines, might not be easily identified and removed  
7                  by a tree crew on its own, who are not trained to identify such trees. However, when a  
8                  circuit is work planned, or pre-screened by the work planners, those trees can be  
9                  appropriately marked for removal. This reduces future work of removals or unnecessary  
10                 pruning.
- 11                 The Company also has a “permission” person on the tree crew staff who has the positive  
12                 personality, assertiveness, and mindfulness to obtain permission from customers to flat  
13                 cut or remove trees that have been previously topped or damaged by the cycle pruning  
14                 actions. His actions have allowed us to more often receive permission to create the  
15                 specified corridor that we strive to achieve. This does result in increased removal costs at  
16                 times, but it also reduces both future removal and trimming costs as well as improve  
17                 customer relations.
- 18      **Q.    Please explain why removals for risk are necessary.**
- 19      A.    It is a necessity that Granite State remove trees for potential risk to its assets. We have  
20                 incorporated the industry best practice of using consulting utility arborists to closely  
21                 evaluate the trees along the corridor. They are assigned the task of finding and marking

1           the highest risk trees. It is expected in the future, as we have seen in the past few years,  
2           that there is an increase in removals from this activity.

3           Further risks to the trees are Gypsy Moth, Emerald Ash Borer, old age, and a variety of  
4           other natural pests and pathogens causing decline and death among our tree canopy. We  
5           are also seeing a higher volume of trees dying and failing on the system for natural and  
6           cultural causes. By only pruning and not removing these trees, we are creating more risk  
7           to the assets as these issues are not diminishing.

8       **Q. Is customer service an important part of vegetation management?**

9       A. Yes, in fact it is one of the most important. In order to provide the best customer service,  
10          we need to perform some tree work to assist customers with the safe removal of their  
11          trees. While we also remove trees in order to meet our system goals and needs, we strive  
12          to provide the customer with aesthetically pleasing landscapes as a result of our  
13          vegetation management practices. There are cases when a customer requests tree  
14          removal that is outside the scope of safety or our scope of work when we will not  
15          perform the requested work. However, there are many cases where it is reasonable and in  
16          our best interest to perform the requested removal. The ANSI Z133-2017 standard  
17          (American National Standard Institute: Safety Requirements for Arboricultural  
18          Operations) has recently been updated and the new standards may require the Company  
19          to provide additional assistance to make the removal safe for the customer and their  
20          contractor. Funding to accommodate such requests is not currently provided as part of  
21          the VMP.

1      **V.    MODIFICATIONS TO THE VMP**

2      **Q.    What is the Company recommending to modify the VMP?**

3      A.    The Company is recommending that (a) the amount included in base rates be established  
4                 at the test year level of expense, and (b) that supplemental funding be provided for a four-  
5                 year period to allow the Company to address and eliminate the inventory of trees for  
6                 which removals have been deferred.

7      **Q.    Please explain the recommended change to the amount in base rates for VMP.**

8      A.    The Company is requesting to change the amount of VMP O&M spending included in  
9                 base rates from the current level of \$1,500,000 to the test year level of \$1,944,000 after  
10                taking into consideration credits from Consolidated Communications.

11     **Q.    Was the current level of \$1,500,000 based on a test year, and was it intended to  
12                provide full annual funding for purposes of the VMP?**

13     A.    The answer is “no” to both questions. In Docket No. DE 16-383, the Company requested  
14                and received approval to move to a four-year trim cycle from the previous five-year trim  
15                cycle. Recognizing the increase in annual costs associated with that transition, and in  
16                light of other costs items being considered in that rate case which had 2015 as the test  
17                year, the Company proposed an increase in the base rate level of VMP O&M costs from  
18                \$1,360,000 (which had been in existence since the inception of the VMP) to \$1,500,000.  
19                That increased amount in base rates was intended to provide an incremental increase in  
20                the annual funding, but was not intended to provide full VMP funding. In comparison,  
21                the approved VMP O&M spending in calendar year 2015, net of credits received from

1 Fairpoint Communications, was a little over \$1,700,000. The \$1,500,000 amount was  
2 accurately described in the DE 16-383 Settlement Agreement as “the amount of VMP  
3 O&M spending included in base rates.” The amount in base rates provides a set level of  
4 recovery in annual base rates with any increment above that amount subject to recovery  
5 as part of the annual reconciliation process. Through the annual review process of the  
6 REP/VMP budget that takes place with Staff, it has become evident, however, that the  
7 \$1,500,000 has been viewed as a budget amount, which has led to increased pressure to  
8 reduce the annual budget that the Company prepares based on the reliability needs of the  
9 system to get closer to the \$1,500,000 funding level. Such funding pressures have  
10 contributed to where we are today with the backlog of deferred tree removals. In  
11 retrospect, perhaps the Company should have requested a higher amount in Docket No.  
12 DE 16-383 and should have further clarified the wording surrounding the \$1,500,000  
13 amount in the DE 16-383 Settlement Agreement. Regardless, the focus of the VMP is on  
14 maintaining and improving system reliability. In recognition of that fact, the Settlement  
15 Agreement provides for the Company’s submittal of the annual budget for Staff’s review,  
16 and further provides that the budget can exceed the amount included in base rates. As  
17 part of the annual reconciliation process, annual VMP O&M spending above the amount  
18 in base rates can be included in rates, subject to Commission approval.

1      **Q.**    **Are there other factors that support the Company's request with respect to using**  
2                   **the test year level of expense and the amount that should be considered the amount**  
3                   **of VMP O&M costs included in base rates?**

4      A.    Yes. Over the years, certain costs such as police detail costs, which are reviewed as part  
5                   of the annual reconciliation process, have significantly increased. Those costs are outside  
6                   the Company's control, and the use of a flat amount such as \$1,500,000 does not reflect  
7                   the current levels of costs, does not take into account the increase in such costs, and puts  
8                   further pressure on other costs necessary to comply with Puc 307.10 and to maintain  
9                   system reliability. The Company acknowledges and appreciates that it has received  
10                  approval for annual costs in excess of \$1,500,000 in past years, but using a more current  
11                  amount of actual spending will help facilitate the annual review of the VMP O&M  
12                  budget.

13     **Q.**    **Is the Company proposing any changes to the annual reconciliation process?**

14     A.    No. The Company will continue to reconcile actual calendar year vegetation  
15                  management O&M expenses with the test year costs. Any over- or under-collection will  
16                  be reflected in the Company's REP/VMP adjustment factor on May 1 of the following  
17                  year. If the request is lower than what is being recovered at the time of the request, the  
18                  rate level would decrease to accommodate a lower spending level versus the test year.

1      **Q. Please detail the supplemental funding the Company is requesting with respect to**  
2           **deferred tree removals.**

3      A. For the reasons described earlier in our testimony, the Company is requesting an annual  
4           level of funding of \$850,000 for a four-year period, which is one full trimming cycle,  
5           which will allow the Company to catch up on the number of required tree removals and  
6           leave a balance that is manageable and can be handled as part of the annual work plan.  
7           Currently, tree removals have been budgeted at an annual level of approximately  
8           \$450,000, so the Company's request amounts to incremental funding of \$400,000 for a  
9           four-year period. This will allow for the Company to finish the widening of the corridor  
10          to meet the requirement of Puc 307.10. Once the widening has been accomplished and  
11          we do not run into issues with tree mortality from causes such as Gypsy Moth and  
12          Emerald Ash Borer, the Company will only need to maintain those corridors with the  
13          original annually budgeted \$450,000.

14     **Q. How many trees are on the inventory list as of the date of this filing?**

15     A. There are close to 8,000 trees on the list: in 2017, 320 trees; in 2018, 2,848 trees; and in  
16          2019, a projected 4,646 trees. Those trees are broken down into four categories of risk  
17          and consequences:

- 18       1) Highest risk – trees adjacent to three phase cross arm (1,652 trees);  
19       2) High risk – trees adjacent to spacer cable 13" in diameter and greater (130 trees);  
20       3) Medium risk – trees adjacent to spacer cable, less than 13" in diameter (299  
21          trees); and

1           4) Lowest risk – trees adjacent to laterals (5,481 trees).

2           The Company expects to find an average of 4,700 trees annually for removal, plus the  
3           8,000 trees that are already on the deferred list.

4   **Q. Would the Company include this incremental spending in its annual REP/VMP  
5         filing?**

6   A. Yes. As with any other line item, the costs and related activities would be fully subject to  
7         review and approval by the Commission.

8   **VI. CONCLUSION**

9   **Q. Please summarize your proposal.**

10   A. In order to comply with Puc 307.10 and complete the Commission-approved transition to  
11         a four-year trim cycle, Granite State proposes to institute a supplemental interim program  
12         for tree removals that will allow it to catch up on tree removals not addressed in previous  
13         years due to requested budget reductions from Staff. The program would last one full  
14         trim cycle, or four years. The Company is also requesting to increase the amount of  
15         annual VMP O&M spending included in base rates to the test year level of costs to  
16         replace the current \$1,500,000 amount. Cost recovery associated with the VMP would  
17         continue to be reviewed through the annual reconciliation of the REP/VMP.

18   **Q. Does this complete your testimony?**

19   A. Yes, it does.

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