

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

**DOCKET NO. DE 21-XXX**  
**REGULATORY RECONCILIATION ADJUSTMENT**

**Vegetation Management and Reliability Reports**

**DIRECT TESTIMONY OF**  
**ROBERT D. ALLEN and LEE G. LAJOIE**

**On behalf of Public Service Company of New Hampshire**  
**d/b/a Eversource Energy**

**March 1, 2021**

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1 **I. INTRODUCTION**

2 **Q. Mr. Allen, please state your full name, position and business address.**

3 A. My name is Robert D. Allen. I am employed by Eversource Energy Service  
4 Company as Manager of Vegetation Management and in that role I provide support  
5 to Public Service Company of New Hampshire d/b/a Eversource Energy  
6 (“Eversource” or the “Company”). My business address is 780 N. Commercial  
7 Street Manchester, NH 03105.

8 **Q. Please summarize your educational background.**

9 A. I have an Associate of Science in Arboriculture from Stockbridge School of  
10 Agriculture, University of Massachusetts Amherst, MA

11 **Q. Please summarize your professional experience.**

12 A. I was appointed to my current position at Eversource Energy in August 2013. From

1           2009 to 2013, I held the position of Supervisor of Vegetation Management for the  
2           Company. From 1992 to 2009, I was Arborist for The Connecticut Light and Power  
3           Company. Overall, I have approximately 40 years of experience in Arboriculture.

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

5    A.    Yes, I have testified before the New Hampshire Public Utilities Commission (the  
6           “Commission”) before, in Eversource’s last Reliability Enhancement Program  
7           (“REP”) submission in Docket No. DE 18-177 and in Eversource’s recent rate case  
8           in Docket No. DE 19-057.

9   **Q.    Mr. Lajoie, please state your full name, position and business address.**

10   A.    My name is Lee G. Lajoie. I am employed by Eversource Energy Service Company  
11           as Manager of System Resiliency. My business address is 780 North Commercial  
12           Street, Manchester, New Hampshire.

13   **Q.    What are your principal responsibilities in this position?**

14   A.    As the Manager of System Resiliency, I am responsible for the Company’s capital  
15           budgeting process. In recent years, I have also had responsibility for the REP plan,  
16           which supported up to \$40 million of capital investment annually targeted at  
17           reliability projects. As that program has matured and tapered off, I have taken on  
18           broader responsibility for the capital budgeting process going forward. In addition,  
19           there are two internal groups that report to me, which are the reliability reporting  
20           group and the distribution automation group.

1 **Q. Please summarize your professional experience and educational background.**

2 A. I graduated from Northeastern University in Boston, Massachusetts in 1985 with a  
3 Bachelor of Science in Electrical and Computer Engineering, Power Systems, and  
4 from Southern New Hampshire University in Manchester, New Hampshire in 2016  
5 with a Master of Business Administration degree. Upon graduation from  
6 Northeastern University, I was hired by Public Service Company of New  
7 Hampshire (now Eversource) and have held various positions in Distribution  
8 Engineering, Field Engineering, New Service, and Distribution Maintenance with  
9 increasing responsibility through my current position as Manager of System  
10 Resiliency.

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

12 A. Yes, I have testified before the Commission in past proceedings, including Docket  
13 No. DE 17-076, Motion for Approval of Reconciliation and Continuation of  
14 Reliability Enhancement Program, Docket No. DE 17-176, Petition for  
15 Continuation of Reliability Enhancement Program, and in the Company's recent  
16 rate case in Docket No. DE 19-057.

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

18 A. The purpose of our testimony is to present the Company's reports on its vegetation  
19 management and reliability performance for calendar year 2020 and contemplated  
20 in the settlement in the Company's rate case, Docket No. DE 19-057 (the  
21 "Settlement"), as approved by the Commission in Order No. 26,433 (December 15,

1 2020). Specifically, the settlement set out the requirements for a series of reports  
2 and information to be filed by March 1 of each year as the first step in the  
3 Company’s annual Regulatory Reconciliation Adjustment (“RRA”) filing. This  
4 submission is providing the required reports.

5 **Q. Could you describe the specific reports that are included?**

6 A. Yes. In the Settlement, Section 9.3 says this:

7 By March 1 of each year the Company shall submit a filing  
8 containing reports on PSNH’s reliability statistics and vegetation  
9 management activities, and requesting the Commission open a new  
10 docket to consider the filing and other RRA issues. Such reports  
11 shall include information on reliability and vegetation management  
12 activities similar to information historically included in the  
13 Company’s Reliability Enhancement Plan filings. Further detail  
14 regarding the report contents is provided in Appendix 4. The  
15 Company shall also include as part of this annual filing the proposed  
16 adjustment to the August 1 RRA associated with prior calendar year  
17 vegetation management activities, as described in Section 9.1(b)  
18 above.

19  
20 In line with that requirement, this testimony includes the reports identified in  
21 Appendix 4 to the settlement agreement.

22 **Q. Are you presenting any exhibits in addition to your testimony?**

23 A. Yes, we are presenting the following six exhibits in support of this testimony:

<b>Exhibit Designation</b>	<b>Purpose/Description</b>
Exhibit RDA/LGL-1	Reliability Report
Exhibit RDA/LGL-2	2020 Vegetation Management Plan and Performance Report
Exhibit RDA/LGL-3	2021 Vegetation Management Plan Proposal

24

25 We note that the exhibit, RDA/LGL-3 includes the Company’s 2021 vegetation  
26 management plan proposal which is not among the reports specified in Appendix

1           4. Consistent with 6.2 and Appendix 3 of the Settlement, that plan was submitted  
2           to the Commission Staff on November 13, 2020. Since that time, and based partly  
3           upon feedback and questions from the Staff, as well as on additional information  
4           from the contracted vegetation management crews performing work for  
5           Eversource, that plan has been refined and updated. In the interest of responding  
6           to the Staff's questions as well as assuring the availability of the information, the  
7           updated version of that plan has been included here.

8   **Q.    How is your testimony organized?**

9    A.    In addition to this introductory section, our testimony is organized into the  
10   following sections:

- 11           • Section II provides an overview of Eversource's vegetation management  
12           program ("VMP"), including its key initiatives, objectives and performance;
- 13           • Section III discusses the Company's vegetation management activities and  
14           performance in 2020;
- 15           • Section IV discusses the Company's vegetation management activities plan for  
16           2021;
- 17           • Section V testimony discusses the Company's reliability performance in 2020;  
18           and
- 19           • Section VI provides the conclusion to our testimony.

1 **II. VEGETATION MANAGEMENT PROGRAM – MR. ALLEN**

2 **Q. What is the overall design of the vegetation management work performed**  
3 **under the Eversource VMP?**

4 A. As discussed in the Company’s recent rate case, the Eversource VMP is structured  
5 as a comprehensive effort involving multiple departments and significant amounts  
6 of data analysis. The plan is coordinated on an individual circuit basis with the  
7 distribution engineering group and targets specific areas to improve reliability and  
8 resiliency. The execution of the actual tree work is managed by Eversource’s  
9 Vegetation Management department utilizing a staff of Company arborists, contract  
10 arborists and tree trimming and removal contractors. The program covers all  
11 primary wires, with scheduling developed on the basis of a combination of  
12 performance and circuit-specific cycle-based trimming.

13 There are four aspects of the VMP. First, the program includes Scheduled  
14 Maintenance Trimming (“SMT”) which follows an established trim cycle to ensure  
15 that all circuits, regardless of current performance, are trimmed at least once every  
16 four to five years, subject to circuit-specific considerations. Second, the Company  
17 performs Enhanced Tree Trimming (“ETT”) to manage vegetation along the main  
18 backbone of the circuit. In contrast to standard trimming, ETT expands the zones  
19 of tree pruning activity to create additional clearances between tree growth and  
20 electrical facilities. With respect to ETT, the Company employs reliability-based  
21 prioritization methods to schedule vegetation management activity on specific  
22 circuits. The Company targets up to 150 miles per year on circuits with the worst  
23 tree-related reliability experienced in the previous year (i.e., the top 50 list). If the



1 Company determines that a poorly performing circuit is scheduled to be included  
2 in the SMT cycle for that year, the Company will consider including the circuit  
3 backbone under ETT. Third, the program includes hazard tree removal which  
4 involves the identification, and complete removal, of trees determined to be in ill-  
5 health, or which otherwise pose a threat to electrical facilities or public safety, both  
6 within and outside standard trimming zones. The Company seeks to remove trees  
7 that are identified by trained arborists as a hazard to primary conductors. During  
8 the SMT cycle, the Company identifies trees that may fail and, because the  
9 Company usually will not revisit that circuit for another four to five years, includes  
10 the identified trees in the hazard tree removal program. Lastly, with respect to full-  
11 width ROW clearing, the Company researches its easements to confirm the  
12 easement boundaries and then works to clear the rights-of way to the full extent  
13 allowed under the easement. More specifically, full-width ROW clearing involves  
14 the reclamation of existing rights-of-way by the enhanced clearing of trees and  
15 brush to extend the clearances between vegetation and the Company's electrical  
16 facilities located in rights-of-way.

17 **Q. What are the program specifications for SMT?**

18 A. The SMT is conducted on a four to five year cycle and the clearance specifications  
19 are 8 feet to the side, and 15 feet above and 10 feet below. This work is  
20 competitively bid to ensure it is performed in a cost-effective manner. The  
21 Company enters into longer term contracts for SMT work to ensure that contractor  
22 crew resources are available to do the work. As of the fourth quarter of 2020, the

1 Company entered into new four-year contracts for SMT. The SMT is the core of  
2 the VMP and there are approximately ninety crews on the Company's distribution  
3 system every day performing this critical baseline clearance work.

4 **Q. What are the specifications for ETT and hazard tree removal?**

5 A. As noted above, the ETT is focused on circuit backbones and the specification are  
6 8 feet to the side from "ground-to-sky," though there can be equipment limitations  
7 that prevent workers from safely achieving the clearance. This aggressive clearance  
8 program targets overhanging branches that could break and fall onto the Company's  
9 power lines.

10 The ETT work is released for competitive bid annually and over the past decade  
11 this work has been awarded to five different tree contractors. The ETT work is  
12 discussed in-person with impacted tree owners before any work is commenced.  
13 There are occasions where the ETT clearance work is not or cannot be achieved for  
14 reasons that can include but are not limited to: tree owner refusal of permission,  
15 equipment limitations, geographic logistics or access.

16 Hazard tree removal is conducted in parallel with scheduled cycle miles and  
17 priority is placed upon identifying risk and hazard trees along the three-phase  
18 primary, or circuit backbone for removal. The Company may also evaluate single  
19 and two-phase lateral primary for hazard tree removal if the area has been identified  
20 as poor performing or during the performance of SMT work.

1 **Q. Does the Company monitor the performance of its vegetation management**  
2 **contractors to ensure compliance with the Company’s specifications?**

3 A. Yes. The Company routinely audits all vegetation management work performed on  
4 its system and reviews contractor work for adherence to the standards for vegetation  
5 management. Arborists conduct field reviews of all work areas and document any  
6 areas of non-compliance by location, correlating the locations onto circuit maps.  
7 This information is sent to the contractors performing the work and they are  
8 required to complete any necessary re-work in accordance with the standards. All  
9 the SMT miles are audited for quality control annually. In the event proper  
10 clearances have not been achieved, the contractor is responsible for re-trimming at  
11 no additional cost for a period of 12 months

12 **III. 2020 VEGETATION MANAGEMENT PROGRAM – MR. ALLEN**

13 **Q. Please explain the Company’s vegetation management activities for 2020 and**  
14 **its performance.**

15 A. As reflected in Exhibit RDA/LGL-2, the Company trimmed 2,053 miles of SMT in  
16 2020 at a cost of \$13,381,261. The original budgeted miles were 2,450. Overall,  
17 Eversource’s plan was successfully executed to keep the Company on track for  
18 meeting the cycle trimming requirements of the Commission.

19 Of note, the Company’s SMT contracts were up for renewal in 2020 and were put  
20 out to bid consistent with past practice. The responses received were significantly

1 higher than past years reflecting the tight market for people to perform this kind of  
2 work. In the interest of trying to expand the pool of qualified people for this work,  
3 Eversource has encouraged its tree contractors to host job fairs and increase their  
4 social media presence. The Company has also asked its contractors to explore new  
5 and different types of tree clearing/trimming equipment to be used on scheduled  
6 work. Currently, however, the new contracts have put significant pressure on the  
7 budgets for 2021 and forward and will likely result in significant adjustments to the  
8 Company's plans in the future to assure that the SMT continues to meet the  
9 Commission's requirements.

10 Within Exhibit RDA/LGL-2 the Company has included information on its ETT,  
11 Hazard Tree Removal, and ROW clearing activities, including on its budgets and  
12 actual spending on those programs, as well as the amount of work completed.

13 **Q. The Settlement provides that Eversource is to include a proposed adjustment**  
14 **to the August 1 RRA associated with prior calendar year vegetation**  
15 **management activities. Do you have that proposed adjustment?**

16 A. I am not the Company's rate or revenue requirements person, but certain  
17 information has been shared with me on that item. I understand that the Company's  
18 full RRA adjustment will be filed later in 2021 and this filing only provides  
19 preliminary information. For preliminary information, in January-June 2020 there  
20 was an over recovery of \$135,393. That over-recovery, however, was addressed as  
21 part of the recoupment in the rate case and will not be included in the RRA.

1 For July-December 2020, there was an under-recovery of (\$3,482,426) which will  
2 be addressed in the RRA filing. The reason for this under-recovery is that the  
3 Company began 2020 with a budget of \$6 million for the first six months of the  
4 year consistent with the settlement on temporary rates in the rate case. At that time,  
5 there was no budget listed for July through December based on the understanding  
6 that the rate case would be decided before June 30, and that the funding for  
7 vegetation management activities would be determined as part of that decision.  
8 With the adjustments required because of the pandemic, the schedules for the rate  
9 case decision were altered and it was not until later in the year that there was  
10 confirmation about the available funds for ETR, ETT and Full Width Clearing for  
11 July-December. As a result of that delay, vegetation management activities fell  
12 behind the planned levels and the number of crews available to complete the work  
13 scheduled in the SMT, ETT and ETR programs did not reach the total number of  
14 crews needed. This budgeting issue made it so that the Company was unable to  
15 complete all planned work for the year. Additionally, the Company's contracted  
16 tree crews spent several weeks in 2020 on storm work, both in New Hampshire and  
17 in other states. This resulted in a budget variance on each of these programs which  
18 will be addressed in the broader RRA filing.

19 **IV. 2021 VEGETATION MANAGEMENT PROGRAM PLAN – MR. ALLEN**

20 **Q. Please describe the Company's vegetation management program plan for**  
21 **2021.**

22 **A.** As reflected in Exhibit RDA/LGL-3, the Company anticipates trimming 2,675

1 miles of SMT in 2021 at a cost of \$16,605,110. This plan achieves a 4.5 year trim  
2 cycle. As noted above, the major and minor storms that hit New England in 2020  
3 prevented the contracted tree crews from completing the scheduled miles that  
4 calendar year. While the Company is still within the Commission’s mandate of a  
5 60-month cycle schedule for SMT, the 2020 scheduled miles that were not achieved  
6 are being included in the 2021 plan to get back on track.

7 The last 4-year contract for SMT ended in December 2020. The new 4-year contract  
8 has resulted in a significant increase in the cost per mile for all the awarded work.  
9 This has resulted in a larger budget needed to complete the anticipated tree work  
10 than the one that was agreed to in the rate case settlement. The Company will invest  
11 in Vegetation Management at the necessary level to complete the programs that it  
12 believes are foundational to a strong VMP. These programs include SMT, METT,  
13 Hazard Tree, ETT, and Full Width Clearing of ROWs. This investment will also  
14 consider the current operating procedures with the various telephone companies,  
15 along with the 10% “overage” identified in the settlement agreement.

16 **V. 2020 RELIABILITY PERFORMANCE – MR. LAJOIE**

17 **Q. Please describe the Company’s reliability performance in 2020.**

18 A. For many years as part of the Company’s REP filings, Eversource provided  
19 information on numerous reliability statistics and performance metrics. Those  
20 reports showed the impact of the REP and the general improving trends in reliability  
21 performance that came from the REP as well as other company initiatives aimed at

1 improving the reliability and resiliency of the Company's distribution system.

2 Included as Exhibit RDA/LGL-1, are reports and information similar to, but more  
3 expansive than, what had previously been included in the REP reports.

4 Pages 5 through 17 of Exhibit RDA/LGL-1 contain the various graphs and charts  
5 agreed to by Eversource and others, particularly the Commission Staff, as part of  
6 the Settlement to demonstrate the general trends and outcomes in 2020. The graphs  
7 and charts show various reliability indices as specified in Appendix 4 of the  
8 settlement agreement and based on IEEE reporting criteria.

9 Pages 18 to 31 of Exhibit RDA/LGL-1 explain the various O&M activities  
10 conducted by the Company in 2020 aimed at reliability issues. These activities  
11 include patrols of overhead distribution lines, inspections of underground  
12 developments and padmounted equipment, inspections of wood distribution poles  
13 for decay, and repairs of non-capital items on distribution lines related to the  
14 National Electrical Safety Code. These activities are intended to identify potential  
15 problems or failures so that they may be addressed before they impact customers.

16 Pages 32 to 44 of Exhibit RDA/LGL-1, contain the capital expenditures on various  
17 reliability-related activities. This report provides information on "routine" capital  
18 projects targeting reliability as well as specific projects, with information on the  
19 replacement of wooden distribution poles found to be defective through inspection,  
20 replacement of direct buried underground cable with new cable in conduit, and  
21 other capital reliability projects with spending greater than \$100,000 in the calendar

1 year. This last category is further broken down into new projects initiated in 2020,  
2 and projects with spend in 2020 over the threshold but which were established in  
3 prior years.

4 Lastly, pages 45 and 46 of Exhibit RDA/LGL-1 contain the Company's "Worst  
5 Performing Circuits" list, previously referred to at times as the "Hit List." This list  
6 is adjusted annually to track the circuits with the worst reliability performance and  
7 helps to set some of the Company's priorities for reliability work to ensure the best  
8 reliability possible for the greatest number of customers at the lowest reasonable  
9 cost.

10 **VI. CONCLUSION**

11 **Q. Do you have any concluding remarks?**

12 A. We believe that the included reports and information show that the Company was  
13 generally successful in its vegetation management activities in 2020 and that the  
14 Company has also demonstrated continuing improvement in customer reliability  
15 over time, all of which are beneficial to customers in New Hampshire.

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

17 A. Yes, it does.