Public Service Company of New Hampshire
d/b/a Eversource Energy
Docket No. DE 23-____
Testimony of Robert D. Allen/Elli Ntakou/Russel D. Johnson
March 1, 2023

STATE OF NEW HAMPSHIRE

BEFORE THE

NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION

DOCKET NO. DE 23-_____

REGULATORY RECONCILIATION ADJUSTMENT

Vegetation Management and Reliability Reports

DIRECT TESTIMONY OF

ROBERT D. ALLEN
ELLI NTAKOU
RUSSEL D. JOHNSON

On behalf of Public Service Company of New Hampshire

d/b/a Eversource Energy

March 1, 2023

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I. INTRODUCTION

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

A. My name is Robert D. Allen. I am employed by Eversource Energy Service Company ("ESC") as Manager of Vegetation Management. In that role I provide support to Public Service Company of New Hampshire d/b/a Eversource Energy ("Eversource" or the "Company"). My business address is 780 N. Commercial Street Manchester, New Hampshire 03105.

Q. Please summarize your educational background.

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

Q. Please summarize your professional experience.

A. I was promoted to my current position at ESC in August 2013. From 2009 to 2013, I held the position of Supervisor of Vegetation Management for the Company. From 1992 to 2009, I was Arborist for the Company's affiliate, The Connecticut Light and Power Company. Overall, I have approximately 40 years of experience in Arboriculture.

Q. Have you previously testified before the New Hampshire Public Utilities Commission?

A. Yes, I have testified before the New Hampshire Public Utilities Commission (the "Commission") in Eversource's last Reliability Enhancement Program ("REP") submission in Docket No. DE 18-177, Eversource's most recent rate case in Docket No. DE 19-057, and in support of the Company's 2021 and Regulatory Reconciliation Adjustment filings in Docket Nos. DE 21-029 and DE 22-022, respectively.

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

A. My name is Elli Ntakou. I am employed by ESC as the Manager of System Resilience and Reliability Planning. My business address is 247 Station Drive, Westwood, Massachusetts 02090.

Q. What are your principal responsibilities in this position relevant to this filing?

A. As the Manager of System Resilience and Reliability Planning, I am responsible for Eversource's reliability and resilience programs for its electrical infrastructure.

The Company's efforts focus on assessing a wide portfolio of reliability and resilience solutions and prioritizing, optimizing and granularly targeting these solutions to its T&D grid needs based on historical data, data forecasts and engineering models. Resilience and reliability planning is critical on Eversource's path to a modern and decarbonized grid and to continue to provide reliable electric service to customers in the face of climate change.

Q. Please summarize your professional experience and educational background.

A. I graduated from Boston University College of Engineering with a Master of Science and a PhD, both in Systems Engineering. Subsequently, I worked for ESAI Power LLC leading their Northeast wholesale power market modeling efforts. From 2018 and until July 2022, I was employed by Quanta Technology, in various positions, most senior being Senior Advisor. As part of my role, I advised a breadth of clients in the power sector on various topics including resilience and reliability, non-wires alternatives, storage use-cases and integration, grid modernization and scenario planning. In July 2022, I joined ESC as the Manager of System Resilience and Reliability Planning.

Q. Have you previously testified before the Commission?

A. No, I have not.

Q. Mr. Johnson, please state your full name, position and business address.

A. My name is Russel D. Johnson. I am employed by ESC as Director-Distribution Engineering. My business address is 780 North Commercial Street, Manchester,

New Hampshire.

Q. What are your principal responsibilities in this position?

A. As the Director-Distribution Engineering, I am responsible for optimizing the performance of the distribution system assets in New Hampshire that are operated by the Company and to ensure customer needs for service and reliability are satisfied.

Q. Please summarize your professional experience and educational background.

A. I graduated from Clarkson University in Potsdam, New York in 1985 with a Bachelor of Science in Electrical and Computer Engineering. I also received a Master of Science in Electric Engineering with a concentration in Power Engineering from Clarkson University in 1987. Upon graduation from Clarkson University, I was hired by the Company and have held various positions in Distribution Engineering, Large Commercial and Industrial Sales, System Projects, and System Planning with increasing responsibility leading to my current position as Director-Distribution Engineering. I have also been a licensed Professional Engineer in the State of New Hampshire since 1990.

Q. Have you previously testified before the Commission?

A. Yes, I have testified before the Commission in past proceedings, including Docket No. DE 09-035 (Reliability Enhancement Program), Docket No. DE 13-177 (Least Cost Integrated Resource Plan), Docket No. 16-576 (Development of New Alternative Net Metering Tariffs and/or Other Regulatory Mechanisms and Tariffs

for Customer-Generators), Docket DE 22-010 (the 2022 Regulatory Reconciliation Adjustment mechanism), and Docket DE 22-030 (the Petition for approval of the Company's Third Step Adjustment).

Q. What is the purpose of your testimony?

A. The purpose of our testimony is to present the Company's reports on its vegetation management and reliability performance for calendar year 2022 as required by Section 9.3 of the comprehensive settlement in the Company's rate case, Docket No. DE 19-057, which was approved by the Commission in Order No. 26,433 issued on December 15, 2020 (the "Settlement"). Specifically, the Settlement set out the requirements for a series of reports and information to be filed by March 1st of each year as the first step in the Company's annual Regulatory Reconciliation Adjustment ("RRA") filing. This testimony accompanies these required reports.

Q. Would you please describe the specific reports that are included?

A. Yes. Section 9.3 of the Settlement states:

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

In line with that requirement, this testimony includes the reports identified in Appendix 4 to the Settlement.

Q. Are you presenting any attachments in addition to your testimony?

A. Yes, we are presenting the following attachments in support of this testimony:

Attachment	Description
Attachment RDA/EN/RDJ-1	2022 Vegetation Management Plan and Performance Report
Attachment RDA/EN/RDJ-2	2023 Vegetation Management Plan Proposal
Attachment RDA/EN/RDJ-3	Reliability Report

We note that Attachment RDA/EN/RDJ-2 includes the Company's 2023 vegetation management plan proposal, which is not among the reports identified in Appendix 4 to the Settlement. However, the Company provided a 2021 vegetation management plan as part of its 2021 RRA filing (submitted on March 1, 2021 in Docket No. DE 21-029) and a 2022 vegetation management plan as part of its 2022 RRA filing (submitted March 1, 2022 in Docket DE 22-010). In the interest of consistency, and to aid the Commission's review of the Company's vegetation management activities, the 2023 Vegetation Management Plan, as filed in Docket No. DE 19-057 on November 15, 2022, is included here.

Q. How is your testimony organized?

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

- Section II provides an overview of Eversource's vegetation management program ("VMP"), including its key initiatives, objectives and performance;
- Section III discusses the Company's vegetation management activities and performance in 2022;
- Section IV discusses the Company's vegetation management activities plan for 2023;
- Section V discusses the Company's reliability performance in 2022; and
- Section VI provides the conclusion to our testimony.

Mr. Allen is primarily responsible for Sections II, III and IV. Ms. Ntakou and Mr. Johnson are primarily responsible for Section V.

II. VEGETATION MANAGEMENT PROGRAM

Q. Mr. Allen, what is the overall design of the vegetation management work performed under the Eversource VMP?

A. As discussed in the Company's Settlement and Docket Nos. DE 21-029 and DE 22-010, the Eversource VMP is structured as a comprehensive effort involving multiple departments and significant amounts of data analysis. The plan is coordinated on an individual circuit basis with the distribution engineering group

and targets specific areas to improve reliability and resiliency. The execution of the actual tree work is managed by Eversource's Vegetation Management Department utilizing a staff of Company arborists, contract arborists and tree trimming and removal contractors. The program covers all primary wires, with scheduling developed on the basis of a combination of performance and circuit-specific cycle-based trimming.

There are four aspects of the VMP. First, the program includes Scheduled Maintenance Trimming ("SMT"), which follows an established trim cycle to ensure that all circuits, regardless of current performance, are trimmed at least once every four to five years, subject to circuit-specific considerations. Second, the Company performs Enhanced Tree Trimming ("ETT") to manage vegetation along the main backbone of the circuit. In contrast to standard trimming, ETT expands the zones of tree pruning activity to create additional clearances between tree growth and electrical facilities. With respect to ETT, the Company employs reliability-based prioritization methods to schedule vegetation management activity on specific circuits. The Company targets up to 100 miles per year on circuits with the worst tree-related reliability experienced in the previous year (*i.e.*, the top 50 list). If the Company determines that a poorly performing circuit is scheduled to be included in the SMT cycle for that year, the Company will consider including the circuit backbone under ETT. Third, the program includes hazard tree removal. The hazard tree program works in parallel with the SMT cycle. It involves the review of SMT

circuits, to identify and complete the emergent removal of trees determined to be in ill-health, or that otherwise pose a threat to electrical facilities or public safety, both within and outside standard trimming zones. The Company seeks to remove trees that are identified by trained arborists as a hazard to primary conductors. It is best practice and prudent to remove the dead, diseased and/or dying trees while trimming the SMT circuit and to include those trees in the hazard tree removal program, as the Company typically will not revisit that circuit for another four to five years.

Lastly, the fourth component of the program is full-width rights-of-way ("ROW") clearing. The Company researches its easements to confirm the easement boundaries and then works to clear the ROW to the full extent allowed under the easement. More specifically, full-width ROW clearing involves the reclamation of existing ROW by the enhanced clearing of trees and brush to extend the clearances between vegetation and the Company's electrical facilities located in those ROWs.

Q. What are the program specifications for SMT?

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

there are approximately ninety crews on the Company's distribution system every day performing this critical baseline clearance work.

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

A. As noted above, the ETT is focused on circuit backbones and the specification are 10 feet to the side from "ground-to-sky," though there can be equipment limitations that prevent workers from safely achieving the clearance. This strategic clearance program targets overhanging branches that could break and fall onto the Company's power lines.

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

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

Q. Does the Company monitor the performance of its vegetation management contractors to ensure compliance with the Company's specifications?

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

III. 2022 VEGETATION MANAGEMENT PROGRAM

Q. Mr. Allen, please explain the Company's vegetation management activities for 2022 and its performance.

A. As reflected in Attachment RDA/EN/RDJ-1, the Company trimmed 2,541 miles of SMT/METT in 2022 at a cost of $16,585,976. The original budgeted miles were 2,553 miles. Eversource successfully executed its SMT/METT miles to keep the Company on track for meeting the cycle trimming requirements of the Commission.

Within Attachment RDA/EN/RDJ-1, the Company has also included information on its ETT, Hazard Tree Removal, and ROW clearing activities, including the 2022 plan budget, as filed on March 1, 2022 in Docket No. DE 22-010 as Attachment RDA/JJH/RDJ-2, and the 2022 actual costs incurred for those programs, as well as the amount of work completed.

Q. Has the Company noticed an increasing number of hazard trees on its system?

A. Yes. The Company continued to find that the trees of New Hampshire have been impacted by many biotic factors over the last several years. These issues primarily include repeated drought years, Emerald Ash Borer, Spongy Moth, Hemlock Wooly Adelgid, Hemlock Looper, Elongate Hemlock Scale, White Pine Needle Disease and the residual effect of the listed factors. Such issues will mean more trees that are standing dead or in declining health along the roadside forest. The Company believes that adherence to a maintenance cycle, along with an aggressive hazard tree removal program, are key components to a successful and reliable Vegetation Management Program.

Q. Did Eversource experience any resource constraints during 2022?

A. Yes. As discussed in previous RRA dockets, retaining sufficient resources is an ongoing challenge. Following the pandemic, there were fewer crews available in New Hampshire. The price points at neighboring New England utilities were higher than the contracted prices on its New Hampshire system. As a result, tree contractors found the work on the Company's system to be less profitable.

In addition, while Eversource currently has sufficient experienced professionals managing its Vegetation Management Program, there are longer-term concerns with the work force. There continue to be limited existing qualified resources in New England, with very few programs in high school or college that focus on the Arboriculture/Forestry fields. This results in an extremely competitive market with

a material impact on costs and has had a direct impact on the availability of trained individuals the Company can utilize as seen in recent bids.

Q. Has the Company taken any steps to address these resource constraints?

A. Yes. In the interest of trying to expand the pool of qualified people for this work, Eversource has encouraged its tree contractors to host job fairs and increase their social media presence. The Company has also asked its contractors to explore new and different types of tree clearing/trimming equipment to be used on scheduled work. Currently, however, the new contracts have put significant pressure on the budgets for 2023 and forward and will likely result in significant adjustments to the Company's plans in the future to assure that the SMT continues to meet the Commission's requirements.

Q. How did resource constraints and 2021 storm restoration efforts contribute to the Company's underspend in 2022?

A. The crew resource constraints discussed above that have impacted Vegetation Management ("VM") over the last few years continued to be an issue in 2022. These resource constraints left the Company with fewer crews than originally planned for 2022 work.

In addition, the Company began 2022 with a backlog of VM work from 2021. This backlog was the result of storm restoration efforts and severe weather. In 2021, several major storm events resulted in VM crews being deployed for restoration efforts. These are the same crews that perform work under the VMP. As a result,

these 2021 restoration efforts created a backlog of VM work for 2022.

To address this backlog, the Company's first quarter 2022 strategy was to focus on hazard trees that had the greatest risk to customer reliability that were not addressed in December 2021 due to storm restoration efforts and resource constraints. In addition to addressing this backlog of hazard trees, the Company continued to focus on SMT.

In order to ensure that adequate mileage would be completed in 2022, the Company transitioned most of its crews to SMT/METT in the second and third quarters of 2022. This action reduced the investment on hazard trees for several consecutive months. The Company did initially ramp back up its hazard tree removals in the fourth quarter of 2022 with the intent of completing all hazard tree removals by year end. However, the Company did not fulfill its VMP investment strategy for hazard trees due to storm restoration efforts in December 2022. As discussed above, the Company did complete all SMT miles.

Q. Have you proposed an adjustment consistent with the Settlement, which directs Eversource to include a proposed adjustment to the August 1 RRA associated with prior calendar year vegetation management activities?

A. It is my understanding that the Company's full RRA adjustment will be filed on May 1, 2023 and therefore this filing only provides preliminary information that is subject to change. As of December 31, 2022, the Company completed the workplan as scheduled. As of March 1, 2023, the preliminary information available shows an over-recovery of $1,586,392. The 2022 over-recovery was the result of

underspending on hazard tree removal due to (1) resource constraints; (2) a backlog of hazard trees due to storm restoration efforts at the end of 2021 that required adjustments to the 2022 VMP; and (3) storm restoration work during December 2022. As discussed below, the Company is proposing to carry this amount over into the next program year to offset 2023 VMP costs.

Q. Pursuant to Section 6.2(c) of the Settlement Agreement, the Company is permitted to request to carry any over-collection into the next program year as an offset or to return the over-collection to customers through the RRA. How is the Company proposing to address the over-collection?

A. The Company is proposing to carry the over-collection into the next program year to serve as an offset. As discussed below, VM contractor costs have increased, and as previously described, certain VMP investments were unable to be completed in 2022 due to storm restoration efforts. Therefore, the Company determined that an offset to the 2023 program year costs is appropriate and prudent to enable the Company to provide continued improvement in customer reliability while meeting its VMP objectives.

IV. 2023 VEGETATION MANAGEMENT PROGRAM PLAN

Q. Mr. Allen, please describe the Company's vegetation management program plan for 2023.

A. As reflected in Attachment RDA/EN/RDJ-2, which was filed in Docket No. DE 19-057 on November 15, 2022, the Company anticipates trimming 2,399 miles of SMT/METT in 2023. The 2023 Distribution SMT Total estimated cost is $24,925,259, which was not adjusted for expected reimbursements to be received

from telephone company providers related to SMT activities. This plan reflects the scheduled miles for the Company to maintain a 5-year maintenance cycle, in line with the "no more than 5-year cycle" tree-pruning requirements of the Commission's rule Puc 307.10. The Company is still within the Commission's mandate of a 5-year cycle schedule for SMT.

As discussed in Docket Nos. DE 21-029 and DE 22-010, the last 4-year contract for SMT ended in December 2020. The new 4-year contract has resulted in a significant increase in the cost per mile for all the awarded work. This has resulted in a larger budget needed to complete the anticipated tree work than the one that was agreed to in the Settlement. The Company will invest in VM at the necessary level to complete the programs that it believes are foundational to a strong VMP. These programs include SMT, METT, Hazard Tree Removal, ETT, and Full Width Clearing of ROWs. This investment will also consider the current operating procedures with the various telephone companies, along with the 10 percent "overage" identified in Section 6.2 of the Settlement.

V. 2022 RELIABILITY PERFORMANCE

Q. Ms. Ntakou and Mr. Johnson, please describe the Company's reliability performance in 2022.

A. For many years as part of the Company's REP filings, Eversource provided information on numerous reliability statistics and performance metrics. Those reports showed the impact of the REP and the generally improving trends in system-average metrics of our reliability performance that came from the REP as well as

other company initiatives aimed at improving the reliability and resiliency of the Company's distribution system.

Included as Attachment RDA/EN/RDJ-3 is the 2022 Annual Reliability Report providing information similar to, but more expansive than, what had previously been included in the REP reports. This attachment is consistent with the format used for this report in Docket Nos. DE 21-029 and DE 22-010.

Pages 7 through 17 of Attachment RDA/EN/RDJ-3 contain the various graphs and charts agreed to by the parties to the Settlement to demonstrate the general trends and outcomes regarding reliability in 2022. The graphs and charts show various reliability indices as specified in Appendix 4 of the Settlement and are based on IEEE reporting criteria.

Pages 18 to 27 of Attachment RDA/EN/RDJ-3 explain the various operations and maintenance ("O&M") activities conducted by the Company in 2022 aimed at reliability issues. These activities include patrols of overhead distribution lines, inspections of underground developments and padmounted equipment, inspections of wood distribution poles for decay, and repairs of non-capital items on distribution lines related to the National Electrical Safety Code. These activities are intended to identify potential problems or failures so that they may be proactively addressed before they impact customers.

Pages 28 to 39 of Attachment RDA/EN/RDJ-3, contain the capital expenditures on various reliability-related activities. This report provides information on "routine" capital projects targeting reliability as well as specific projects, with information on the replacement of wooden distribution poles found to be defective through inspection, replacement of direct buried underground cable with new cable in conduit, and other capital reliability projects with spending greater than $100,000 in the calendar year. This last category is further broken down into new projects initiated in 2022, and projects with spend in 2022 over the threshold but which were established in prior years.

Lastly, pages 40 and 41 of Attachment RDA/EN/RDJ-3 contain the Company's "Worst Performing Circuits" list. This list is adjusted annually to track the circuits with the highest contribution to the Company's SAIDI and SAIFI (in two separate lists) and helps to inform the Company's priorities for future reliability work to ensure the best reliability possible for the greatest number of customers at the lowest reasonable cost.

VI. CONCLUSION

Q. Do you have any concluding remarks?

A. The reports and related information included with this filing show that the Company was successful in its vegetation management activities in 2022 and that the Company has also demonstrated continuing improvement in customer reliability over time, all of which are beneficial to customers in New Hampshire.

Q. Does this conclude your testimony?

A. Yes, it does.

Public Service Company of New Hampshire d/b/a Eversource Energy
2022 Vegetation Management Plan and Performance Report
March 1, 2023

As required by Section 9.3 of the Settlement Agreement approved by the New Hampshire Public Utilities Commission (the "Commission") in Docket DE 19-057, Order No. 26,433 (December 15, 2020) (the "Settlement"), Public Service Company of New Hampshire d/b/a Eversource Energy ("Eversource" or the "Company") provides the following vegetation management report for calendar year 2022.

The Company has included the relevant planned and actual vegetation management work by circuits and miles for 2022 in the supporting tables below.

Scheduled Maintenance Trimming ("SMT") Program: The Company's SMT cycle is based on an approximately 12,000-mile distribution overhead system and is performed, in part, by third-party contractors. The Company awards the work through a competitive bid process with a 4-year contract as the main component of the program. As part of the 4-year contract, the Company receives fixed pricing for the first two years of the contract. The Company Procurement team then negotiates year three with the contractors. Year two of the current 4-year contract was 2022, and negotiations for year three (2023) occurred during late 2022. The pricing for year three (2023) was substantially higher than year two (2022). There were protracted negotiations during December 2022, which resulted in additional contractors being awarded work in 2023. Cost increases were caused by inflation, supply chain, rising fuel, insurance, equipment, and labor costs. Overall, we saw a 20% increase in costs for year three (2023), when compared to year two (2022).

One of the contributing factors to the cost increase is crew availability. This topic has been discussed with the Commission and the Department of Energy Staff for the last few years. Costs associated with police details were also included in the bids received in response to the RFP. Every year, the number of roads that require traffic control increases. It can be difficult for contractors to project which towns and "new" roads will require police details. Contractors are diligent in controlling risk, and as a result, the competitive bid pricing reflects that through increased costs.

The Company awarded work to a new contractor in 2022 for SMT (Nelson Tree), along with the historic contractors Asplundh, Lewis, Lucas, and Northern. The Company's plan for 2022 was to have tree contractors perform SMT on 2,304 miles and the budgets were developed around that plan. The table below provides the 2022 proposed SMT trimming miles per region, as compared to the 2022 actual miles trimmed. The Plan Miles were derived from Docket No. DE 22-010, Attachment RDA/JJH/RDJ-2, "2022 Vegetation Management Plan Proposal," at Page 2, as filed on March 1, 2022.

Eversource 2022 SMT		
Region	**Plan Miles**	**Actual Miles**
Southern	530.69	392.83
Central	462.17	462.17
Western	593.25	616.78
Eastern	427.25	369.74
Northern	290.89	435.20
Total Annual Miles	**2,304.25**	**2,276.72**

Maintenance Enhanced Tree Trimming ("METT") Program: METT is maintenance trimming performed on miles that were previously subject to ETT. The amount of METT changes each year based on the circuit schedule. The Plan Miles were derived from Docket No. DE 22-010, Attachment RDA/JJH/RDJ-2, at Page 3, as filed on March 1, 2022. The total METT plan for 2022 was 249 miles.

Eversource 2022 METT		
Region	**Plan Miles**	**Actual Miles**
Southern	83.63	98.07
Central	46.26	46.26
Western	51.14	51.14
Eastern	44.42	33.71
Northern	23.18	35.27
Total Annual Miles	**248.63**	**264.45**

Mid-cycle work is additional work completed on a circuit in between the standard cycle under the SMT. This can include vine removal and "cycle buster" type trees. This program is an emergent one and the budget is minimal as the Company is prioritizing the SMT cycle work with the funding available. If the need arises to address circuit miles with this application, the Company will utilize funds from the allocated budget. The Plan Miles were derived from Docket No. DE 22-010, Attachment RDA/JJH/RDJ-2, at Page 3, as filed on March 1, 2022.

Eversource 2022 Mid Cycle		
Region	**Plan Miles**	**Actual Miles**
Southern	0.00	0.00
Central	0.00	0.00
Western	0.00	0.00
Eastern	0.00	2.40
Northern	0.00	1.73
Total Annual Miles	**0.00**	**4.13**

Customer Request work is work that is generated or initiated to address an issue identified by a customer rather than as part of the scheduled or planned circuit miles. Most often, these are service trimming requests. The amount of Customer Request work changes every year. Eversource has encouraged customers through social media to hire professionals to handle their tree issues. The pandemic has changed interactions with our customers. However, due to the prevalence of invasive insects and diseases, the Company sometimes learns about problematic trees or groups of trees from customers. The work needed to mitigate the issues posed by these trees is often performed by Company contractors. The Plan Spend was derived from Docket No. DE 22-010, Attachment RDA/JJH/RDJ-2, at Page 4, as filed on March 1, 2022. The Plan Spend is not available by region as the work is emergent and dependent on developments in the field.

Eversource 2022 Customer Request Work		
Region	**Plan Spend**	**Actual Spend**
Southern	$0	$63,195
Central	$0	$32,765
Western	$0	$55,869
Eastern	$0	$66,831
Northern	$0	$3,263
Total Annual Spend	**$150,000**	**$221,923**

The Hot Spot Program addresses tree growth in between cycles. If there is a reliability concern that is caused by a tree prior to its next scheduled trim, we will assess and mitigate if needed. The Plan Miles were derived from Docket No. DE 22-010, Attachment RDA/JJH/RDJ-2, at Page 4, as filed on March 1, 2022.

Eversource 2022 Hot Spot		
Region	**Plan Miles**	**Actual Miles**
Southern	0.00	3.27
Central	0.00	3.88
Western	0.00	0.12
Eastern	0.00	34.22
Northern	0.00	0.00
Total Annual Miles	**0.00**	**41.49**

The rights of way ("ROW") maintenance program includes mowing and side trimming. The acres listed were mowed, and during the quality control inspection of the mowing, any tree limbs that were within 20 feet of the line were noted and a crew was sent to trim the limbs. The Plan Acres were derived from Docket No. DE 22-010, Attachment RDA/JJH/RDJ-2, at Page 5, as filed on March 1, 2022.

Eversource 2022 ROW Maintenance				
Region	**Plan Side Trim Miles**	**Actual Side Trim Miles**	**Plan Acres (Mow)**	**Actual Acres (Mow)**
Southern	1.88	1.88	22.78	22.78
Central	9.00	9.00	144.43	109.04
Western	10.18	10.18	123.32	123.32
Eastern	10.90	10.90	131.84	131.84
Northern	56.81	56.81	803.82	275.15
Total Annual Miles/Acres	**88.77**	**88.77**	**1,226.19**	**662.13**

The Full Width Clearing of ROW identifies ROWs where enhanced clearing will benefit customers and workers. This work is competitively bid. The tree contractor clears brush and trees to the full easement width. At the edge of the easement, the bordering trees are trimmed from ground to sky. The Company's arborists work closely with abutting property owners to communicate the work needed and the final product. The Plan Miles were derived from Docket No. DE 22-010, Attachment RDA/JJH/RDJ-2, at Page 6,

as filed on March 1, 2022.

Eversource 2022 ROW Full Width Clearing		
Region	**Plan Miles**	**Actual Miles**
Southern	0	1.75
Central	2.92	1.90
Western	0	0.20
Eastern	0	0
Northern	7.40	13.15
Total Annual Miles	**10.32**	**17.00**

For the ETT Program, the Company identified 56.26 miles of planned three phase circuits in 2022. These miles were competitively bid. Actual miles completed totaled 54.13 miles. The Plan Miles were derived from Docket No. DE 22-010, Attachment RDA/JJH/RDJ-2, at Page 6, as filed on March 1, 2022.

Eversource 2022 ETT		
Region	**Plan Miles**	**Actual Miles**
Southern	2.06	0
Central	8.47	4.90
Western	18.36	18.89
Eastern	20.69	18.72
Northern	6.68	11.62
Total Annual Miles	**56.26**	**54.13**

The Company profiles the SMT circuits for hazard trees. Hazard trees are trees that are diseased or damaged and should be removed rather than trimmed due to their potential to impact the electric system. It is best practice to remove the troublesome trees while trimming the circuit. The customers on whose property the hazard trees grow, and who, therefore, own the hazard trees, are engaged in one conversation for both programs. The total number of trees removed are compiled monthly. The Company's 2022 plan included SMT and METT of 2,304.25 and 248.63 miles, respectively, as compared to the 2022 actuals for SMT and METT of 2,276.72 and 264.45 miles, respectively.

Eversource 2022 Total Number of Hazard Trees		
Region	**Plan Trees**	**Actual Trees**
Southern	0	3,738
Central	0	3,529
Western	0	2,618
Eastern	0	3,282
Northern	0	4,845
Total Annual Trees	**0**	**18,012**

While Eversource currently has experienced professionals managing its Vegetation Management Program, there are longer-term concerns with the work force. There are very few programs in high school or college to attract students to Arboriculture/Forestry. It is a difficult job performed in all types of weather, usually aloft. This has had a direct impact on the work the Company does and the availability of trained individuals to do it, and, as has been seen in recent bids, has had a material impact on costs.

Table 1. Summary of Eversource's 2022 Planned vs. Actual Vegetation Management Program Costs

Line	(a) VMP Activity	(b) 2022 Plan Gross Cost	(c) 2022 Plan Reimbursements	(d) (b) + (c) 2022 Plan Net Cost	(e) 2022 Actual Gross Cost	(f) 2022 Actual Reimbursements	(g) (e) + (f) 2022 Actual Net Cost	(h) (b) - (e) Variance Gross Cost	(i) (c) - (f) Variance Reimbursements	(j) (h) + (i) Variance Net Cost	Reference
1	Scheduled Maintenance Trim	$ 21,164,400	$ (4,232,880)	$ 16,931,520	$ 14,956,053	$ (2,501,172)	$ 12,454,881	$ 6,208,347	$ (1,731,708)	$ 4,476,639	Tables 2-6
2	METT	2,133,720	(426,744)	1,706,976	1,629,923		1,629,923	503,797	(426,744)	77,053	Tables 2-6
3	Mid Cycle Review	250,000		250,000	32,016		32,016	217,984	-	217,984	Table 7
4	Customer Work	150,000		150,000	221,923		221,923	(71,923)	-	(71,923)	Table 9
5	Hot Spot Work	200,000		200,000	91,688		91,688	108,312	-	108,312	Table 8
6	Police/Flagging	100,000		100,000	-		-	100,000	-	100,000	
7	Sub Transmission (Mowing/Side Trim)	850,000		850,000	1,092,145		1,092,145	(242,145)	-	(242,145)	Table 10
8	Distribution SMT Total	$ 24,848,120	$ (4,659,624)	$ 20,188,496	$ 18,023,748	$ (2,501,172)	$ 15,522,575	$ 6,824,372	$ (2,158,452)	$ 4,665,921	
9	Full Width Clearing	$ 1,000,000	$ -	$ 1,000,000	$ 1,462,715		$ 1,462,715	$ (462,715)	$ -	$ (462,715)	Table 11
10	Hazard Tree Removal	9,000,000	(4,500,000)	4,500,000	11,197,958	(5,075,753)	6,122,206	(2,197,958)	575,753	(1,622,206)	Table 13
11	Enhanced Tree Trimming	1,150,000	(79,520)	1,070,480	2,406,112		2,406,112	(1,256,112)	(79,520)	(1,335,632)	Table 12
12	Subtotal	$ 11,150,000	$ (4,579,520)	$ 6,570,480	$ 15,066,786	$ (5,075,753)	$ 9,991,033	$ (3,916,786)	$ 496,233	$ (3,420,553)	
13	Vegetation Management Program Total	$ 35,998,120	$ (9,239,144)	$ 26,758,976	$ 33,090,533	$ (7,576,925)	$ 25,513,608	$ 2,907,587	$ (1,662,219)	$ 1,245,368	
14	2022 Miles (SMT/METT)	2,553			2,541			12			
15	2022 Total VMP Cost	$ 35,998,120	$ (9,239,144)	$ 26,758,976	$ 33,090,533	$ (7,576,925)	$ 25,513,608	$ 2,907,587	$ (1,662,219)	$ 1,245,368	

Table 2. 2022 Vegetation Management Program Plan vs. Actual - Scheduled Maintenance Trimming (SMT) and Maintenance Enhanced Tree Trimming (METT)
Eastern Region (Epping, Portsmouth, and Rochester Area Work Centers)

Trim Year	Circuit	SMT Plan	SMT Actual	METT Plan	METT Actual	Primary Town	AWC	Plan Total Circuit Miles	Actual Total Circuit Miles
2022	13H1_65	0.30	0.30			Newmarket	Epping	0.30	0.30
2022	13H2_65	6.44	6.44			Newmarket	Epping	6.44	6.44
2022	3103X _65	20.65	16.00			Raymond	Epping	20.65	16.00
2022	3103X1_65	38.30	14.90	10.71		Fremont	Epping	49.01	14.90
2022	3115X14_65	6.15	6.15			Raymond	Epping	6.15	6.15
2022	3137X10_65	14.62	14.62			Lee	Epping	14.62	14.62
2022	3137X80_65	8.81	8.81			Northwood	Epping	8.81	8.81
2022	3152X_65	18.51	18.51			Durham	Epping	18.51	18.51
2022	3162X1_65	20.88	20.88			Durham	Epping	20.88	20.88
2022	377X1_65	3.08	3.08	1.82	1.82	Durham	Epping	4.90	4.90
2022	377X11_65	4.12	4.12			Epping	Epping	4.12	4.12
2022	377X12_65	0.39	0.39			Epping	Epping	0.39	0.39
2022	377X13_65	0.29	0.29			Epping	Epping	0.29	0.29
2022	377X14_65	0.12	0.12			Epping	Epping	0.12	0.12
2022	377X17_65	0.04	0.04			Epping	Epping	0.04	0.04
2022	377X18_65	0.59	0.59			Epping	Epping	0.59	0.59
2022	377X29_65	4.12	4.12			Lee	Epping	4.12	4.12
2022	377X3_65	16.52	16.52			Epping	Epping	16.52	16.52
2022	377X7_65	9.51	9.51	7.43	7.43	Epping	Epping	16.94	16.94
2022	380X2 _65	4.63	4.63			Durham	Epping	4.63	4.63
2022	16W4_63	4.07	4.07			Portsmouth	Portsmouth	4.07	4.07
2022	3102X1_63	0.52	0.52			Portsmouth	Portsmouth	0.52	0.52
2022	3112X3_63	4.77	4.77			North Hampton	Portsmouth	4.77	4.77
2022	3172X2_63	5.06	5.06			North Hampton	Portsmouth	5.06	5.06
2022	3191X9_63	2.05	2.05	1.63	1.63	Greenland	Portsmouth	3.68	3.68
2022	339X3_63	0.95	0.95			Portsmouth	Portsmouth	0.95	0.95
2022	339X8_63	1.46	1.46	1.46	1.46	Portsmouth	Portsmouth	2.92	2.92
2022	3850X5_63	0.81	0.81	0.85	0.85	Newington	Portsmouth	1.66	1.66
2022	58W1_63	0.54	0.54	1.81	1.81	Portsmouth	Portsmouth	2.35	2.35
2022	3148X3_61	14.50	14.50	0.00	0.00	Dover	Rochester	14.50	14.50
2022	3174X4_61	28.14	28.14	6.85	6.85	New Durham	Rochester	34.99	34.99
2022	340X11_61	0.62	0.62	0.00	0.00	Rochester	Rochester	0.62	0.62
2022	362X2 _61	45.96	16.50	0.00	0.00	New Durham	Rochester	45.96	16.50
2022	362X3 _61	2.24	2.24	0.00	0.00	Farmington	Rochester	2.24	2.24
2022	362X4 _61	5.55	5.55	0.00	0.00	Farmington	Rochester	5.55	5.55
2022	371X6 _61	0.16	0.16	0.00	0.00	Rochester	Rochester	0.16	0.16
2022	371X7_61	0.30	0.30	0.00	0.00	Rochester	Rochester	0.30	0.30
2022	38W2 _61	27.19	27.19	4.87	4.87	Dover	Rochester	32.06	32.06
2022	392X_61	2.81	2.81	0.00	0.00	Rochester	Rochester	2.81	2.81
2022	392X1_61	61.68	61.68	3.95	3.95	Strafford	Rochester	65.63	65.63
2022	51H1_61	5.79	5.79	3.04	3.04	Rollinsford	Rochester	8.83	8.83
2022	54H1 _61	4.64	4.64	0.00	0.00	Dover	Rochester	4.64	4.64
2022	54H2 _61	6.02	6.02	0.00	0.00	Dover	Rochester	6.02	6.02
2022	57W1_61	23.35	23.35	0.00	0.00	Milton	Rochester	23.35	23.35
Total		**427.25**	**369.74**	**44.42**	**33.71**			**471.67**	**403.45**

Table 3. 2022 Vegetation Management Program Plan vs. Actual - Scheduled Maintenance Trimming (SMT) and Maintenance Enhanced Tree Trimming (METT)
Southern Region (Nashua and Derry Area Work Centers)

Trim Year	Circuit	SMT Plan	SMT Actual	METT Plan	METT Actual	Primary Town	AWC	Plan Total Circuit Miles	Actual Total Circuit Miles
2022	3154X1_21	21.47	17.71	1.15	3.87	Nashua	Nashua	22.62	21.58
2022	3154X2_21	34.76	34.76	4.23	7.18	Hollis	Nashua	38.99	41.94
2022	314X4_22	91.53	91.53	5.97	6.05	Wilton	Nashua	97.50	97.58
2022	40W1_21	11.21	11.21			Nashua	Nashua	11.21	11.21
2022	3159X_21	48.25	48.25		0.11	Merrimack	Nashua	48.25	48.36
2022	353X3_21	3.37	3.37			Nashua	Nashua	3.37	3.37
2022	353X4_21	3.59	3.59		0.01	Nashua	Nashua	3.59	3.60
2022	353X5_21	4.72	4.72			Nashua	Nashua	4.72	4.72
2022	353X6_21	1.08	1.08			Nashua	Nashua	1.08	1.08
2022	383X2	8.91	8.91			Litchfield	Nashua	8.91	8.91
2022	389X8_21	1.17	1.35			Hudson	Nashua	1.17	1.35
2022	3175X_21		9.33		2.68	Hudson	Nashua	0.00	12.01
2022	3175x1_21		17.64			Hudson	Nashua	0.00	17.64
2022	3175X3_21	1.72	1.72			Hudson	Nashua	1.72	1.72
2022	3175X5_21	1.89	1.89			Hudson	Nashua	1.89	1.89
2022	3168X_21	21.19	21.19		0.11	Nashua	Nashua	21.19	21.30
2022	383X1_21	0.02	16.02		5.31	Litchfield	Derry	0.02	21.33
2022	383X2_21	8.93	8.93			Litchfield	Derry	8.93	8.93
2022	383X3_21	6.76	6.27	0.00	0.47	Hudson	Derry	6.76	6.74
2022	32W1_23	0.00	0.00	4.89	4.89	Derry	Derry	4.89	4.89
2022	32W3_23	0.00	0.00	4.65	4.65	Derry	Derry	4.65	4.65
2022	32W4_23	0.00	0.00	3.23	3.23	Derry	Derry	3.23	3.23
2022	32W5_23	0.00	0.00	5.33	5.33	Derry	Derry	5.33	5.33
2022	8W1_23	3.96	3.96	0.00	0.00	Derry	Derry	3.96	3.96
2022	26W1_23	7.25	7.25	0.42	0.42	Derry	Derry	7.67	7.67
2022	365X_23	0.00	0.00	3.61	3.61	Londonderry	Derry	3.61	3.61
2022	3128X_23	76.38	0.00	7.41	7.41	Londonderry	Derry	83.79	7.41
2022	3141X_23	96.46	72.15	28.98	28.98	Derry	Derry	125.44	96.46
2022	3818_23	76.07	0.00	7.95	7.95	Hampstead	Derry	84.02	7.95
2022	3184X_23	0.00	0.00	5.81	5.81	Londonderry	Derry	5.81	5.81
Total		**530.69**	**392.83**	**83.63**	**98.07**			**614.32**	**486.23**

Table 4. 2022 Vegetation Management Program Plan vs. Actual - Scheduled Maintenance Trimnming (SMT) and Maintenance Enhanced Tree Trimming (METT)
Central Region (Hooksett and Bedford Area Work Centers)

Trim Year	Circuit	SMT Plan	SMT Actual	METT Plan	METT Actual	Primary Town	AWC	Plan Total Circuit Miles	Actual Total Circuit Miles
2022	34W18_11	20.65	20.65	0.00	0.00	Pembroke	Hooksett	20.65	20.65
2022	334X18_11	8.34	8.34	0.00	0.00	Pembroke	Hooksett	8.34	8.34
2022	334X8_11	1.60	1.60	0.00	0.00	Pembroke	Hooksett	1.60	1.60
2022	44W2_11	26.54	26.54	0.00	0.00	Pembroke	Hooksett	26.54	26.54
2022	334X17_11	3.18	3.18	0.00	0.00	Allenstown	Hooksett	3.18	3.18
2022	334X163_11	0.07	0.07	0.00	0.00	Allenstown	Hooksett	0.07	0.07
2022	334X11_11	0.16	0.16	0.00	0.00	Pembroke	Hooksett	0.16	0.16
2022	334X6_11	0.02	0.02	0.00	0.00	Allenstown	Hooksett	0.02	0.02
2022	334X43_11	0.18	0.18	0.00	0.00	Allenstown	Hooksett	0.18	0.18
2022	14X38_11	0.32	0.32	0.00	0.00	Hooksett	Hooksett	0.32	0.32
2022	14W7_11	12.59	12.59	3.31	3.31	Auburn	Hooksett	15.90	15.90
2022	16W3_11	19.41	19.41	2.02	2.02	Manchester	Hooksett	21.43	21.43
2022	16W1_11	8.97	8.97	0.00	0.00	Manchester	Hooksett	8.97	8.97
2022	14X126A_11	4.28	4.28	4.13	4.13	Auburn	Hooksett	8.41	8.41
2022	3615X3_11	13.09	13.09	3.80	3.80	Manchester	Hooksett	16.89	16.89
2022	3130X_11	22.31	22.31	2.90	2.90	Manchester	Hooksett	25.21	25.21
2022	393X8_11	1.03	1.03	1.62	1.62	Manchester	Hooksett	2.65	2.65
2022	324X8_11	8.51	8.51	0.00	0.00	Londonderry	Hooksett	8.51	8.51
2022	324X10_11	12.67	12.67	0.00	0.00	Manchester	Hooksett	12.67	12.67
2022	324X12_11	0.84	0.84	1.04	1.04	Londonderry	Hooksett	1.88	1.88
2022	324X4_11	0.98	0.98	0.00	0.00	Londonderry	Hooksett	0.98	0.98
2022	393X11_11	2.22	2.22	0.00	0.00	Manchester	Hooksett	2.22	2.22
2022	393X3_11	1.55	1.55	0.00	0.00	Manchester	Hooksett	1.55	1.55
2022	22W1_11	8.36	8.36	0.00	0.00	Manchester	Hooksett	8.36	8.36
2022	22W2_11	6.56	6.56	1.30	1.30	Manchester	Hooksett	7.86	7.86
2022	370X_11	5.64	5.64	1.61	1.61	Manchester	Hooksett	7.25	7.25
2022	14W2_11	7.73	7.73	0.00	0.00	Manchester	Hooksett	7.73	7.73
2022	325X7_11	8.38	8.38	0.00	0.00	Manchester	Hooksett	8.38	8.38
2022	14X118_11	1.07	1.07	0.00	0.00	Manchester	Hooksett	1.07	1.07
2022	14X188_11	8.66	8.66	0.00	0.00	Manchester	Hooksett	8.66	8.66
2022	325X2_11	3.92	3.92	0.00	0.00	Manchester	Hooksett	3.92	3.92
2022	14X109_11	2.50	2.50	0.00	0.00	Manchester	Hooksett	2.50	2.50
2022	14X121_11	0.49	0.49	0.00	0.00	Manchester	Hooksett	0.49	0.49
2022	14X126B_11	0.50	0.50	0.00	0.00	Manchester	Hooksett	0.50	0.50
2022	14X128A_11	0.03	0.03	0.00	0.00	Manchester	Hooksett	0.03	0.03
2022	14X130_11	0.05	0.05	0.00	0.00	Manchester	Hooksett	0.05	0.05
2022	14X134_11	0.03	0.03	0.00	0.00	Manchester	Hooksett	0.03	0.03
2022	14X135_11	1.37	1.37	0.00	0.00	Manchester	Hooksett	1.37	1.37
2022	14X135Y_11	0.08	0.08	0.00	0.00	Manchester	Hooksett	0.08	0.08

Table 4. 2022 Vegetation Management Program Plan vs. Actual - Scheduled Maintenance Trimnming (SMT) and Maintenance Enhanced Tree Trimming (METT)
Central Region (Hooksett and Bedford Area Work Centers)

Trim Year	Circuit	SMT Plan	SMT Actual	METT Plan	METT Actual	Primary Town	AWC	Plan Total Circuit Miles	Actual Total Circuit Miles
2022	14X136_11	0.74	0.74	0.00	0.00	Manchester	Hooksett	0.74	0.74
2022	14X178_11	1.94	1.94	0.00	0.00	Manchester	Hooksett	1.94	1.94
2022	19X6_11	0.22	0.22	0.00	0.00	Manchester	Hooksett	0.22	0.22
2022	393X10_11	0.02	0.02	0.00	0.00	Manchester	Hooksett	0.02	0.02
2022	393X10A_11	0.04	0.04	0.00	0.00	Manchester	Hooksett	0.04	0.04
2022	393X32_11	0.53	0.53	0.00	0.00	Manchester	Hooksett	0.53	0.53
2022	393X33_11	0.02	0.02	0.00	0.00	Manchester	Hooksett	0.02	0.02
2022	393X38_11	0.02	0.02	0.00	0.00	Manchester	Hooksett	0.02	0.02
2022	393X4_11	0.30	0.30	0.00	0.00	Manchester	Hooksett	0.30	0.30
2022	393X40_11	0.33	0.33	0.00	0.00	Manchester	Hooksett	0.33	0.33
2022	393X44_11	0.28	0.28	0.00	0.00	Manchester	Hooksett	0.28	0.28
2022	19X5_11	0.26	0.26	0.00	0.00	Manchester	Hooksett	0.26	0.26
2022	325_11	3.50	3.50	0.00	0.00	Manchester	Hooksett	3.50	3.50
2022	3108_12	55.98	55.98	3.12	3.12	Weare	Bedford	59.10	59.10
2022	85W1_12	63.42	63.42	1.61	1.61	New Boston	Bedford	65.03	65.03
2022	3108X1_12	7.65	7.65	2.85	2.85	Weare	Bedford	10.50	10.50
2022	360X11_12	8.21	8.21	0.00	0.00	Goffstown	Bedford	8.21	8.21
2022	79W4_12	7.68	7.68	4.26	4.26	New Boston	Bedford	11.94	11.94
2022	360X7_12	16.90	16.90	1.53	1.53	New Boston	Bedford	18.43	18.43
2022	334X2_12	13.28	13.28	3.27	3.27	Goffstown	Bedford	16.55	16.55
2022	3151X2_12	0.77	0.77	0.00	0.00	Goffstown	Bedford	0.77	0.77
2022	327X8_12	4.33	4.33	0.00	0.00	Goffstown	Bedford	4.33	4.33
2022	360X13_12	0.62	0.62	0.00	0.00	Goffstown	Bedford	0.62	0.62
2022	327X9_12	1.57	1.57	0.00	0.00	Goffstown	Bedford	1.57	1.57
2022	322X3_12	2.44	2.44	0.00	0.00	Goffstown	Bedford	2.44	2.44
2022	3164X3_12	13.45	13.45	3.04	3.04	Merrimack	Bedford	16.49	16.49
2022	3151X49_12	1.23	1.23	0.00	0.00	Bedford	Bedford	1.23	1.23
2022	3151X 9_12	3.13	3.13	0.00	0.00	Bedford	Bedford	3.13	3.13
2022	3151X10_12	5.69	5.69	1.50	1.50	Bedford	Bedford	7.19	7.19
2022	3151X52_12	3.20	3.20	0.00	0.00	Manchester	Bedford	3.20	3.20
2022	21W1_12	1.23	1.23	3.35	3.35	Manchester	Bedford	4.58	4.58
2022	335X1_12	8.40	8.40	0.00	0.00	Hooksett	Bedford	8.40	8.40
2022	18W1_12	8.99	8.99	0.00	0.00	Manchester	Bedford	8.99	8.99
2022	335X4_12	0.02	0.02	0.00	0.00	Manchester	Bedford	0.02	0.02
2022	3142_12	0.47	0.47	0.00	0.00	Manchester	Bedford	0.47	0.47
2022	335X8_12	0.34	0.34	0.00	0.00	Hooksett	Bedford	0.34	0.34
2022	335X7_12	0.03	0.03	0.00	0.00	Hooksett	Bedford	0.03	0.03
2022	335X6_12	0.06	0.06	0.00	0.00	Hooksett	Bedford	0.06	0.06
Total		**462.17**	**462.17**	**46.26**	**46.26**			**508.43**	**508.43**

Table 5. 2022 Vegetation Management Program Plan vs. Actual - Scheduled Maintenance Trimming (SMT) and Maintenance Enhanced Tree Trimming (METT)
Western Region (Keene and Newport Area Work Centers)

Trim Year	Circuit	SMT Plan	SMT Actual	METT Plan	METT Actual	Primary Town	AWC	Plan Total Circuit Miles	Actual Total Circuit Miles
2022	76W7_31	157.08	157.08	12.83	12.83	Nelson	Keene	169.91	169.91
2022	53H1_31	34.01	34.01	0.00	0.00	Harrisville	Keene	34.01	34.01
2022	33W1_36	50.55	50.55	5.20	5.20	Hancock	Keene	55.75	55.75
2022	3120X3_36	11.58	11.58	2.47	2.47	Rindge	Keene	14.05	14.05
2022	W185_31	15.11	15.11	5.54	5.54	Keene	Keene	20.65	20.65
2022	3178X5_31	10.07	10.07	0.00	0.00	Winchester	Keene	10.07	10.07
2022	42X3_32	73.31	73.31	1.70	1.70	Newport	Newport	75.01	75.01
2022	3410_32	138.59	138.59	15.28	15.28	Bradford	Newport	153.87	153.87
2022	48W1_32	36.87	36.87	0.00	0.00	New London	Newport	36.87	36.87
2022	316X2_32	33.88	33.88	5.40	5.40	Newbury	Newport	39.28	39.28
2022	315X2_32	15.88	15.88	0.00	0.00	Croydon	Newport	15.88	15.88
2022	3410X1_32	7.23	7.23	0.00	0.00	Sunapee	Newport	7.23	7.23
2022	61W2_32	4.34	4.34	2.72	2.72	Claremont	Newport	7.06	7.06
2022	42X1_32	1.09	1.09	0.00	0.00	Newport	Newport	1.09	1.09
2022	316x1_32		23.53	0.00	0.00	Grantham	Newport	0.00	23.53
2022	46W1_32	3.66	3.66	0.00	0.00	Claremont	Newport	3.66	3.66
Total		**593.25**	**616.78**	**51.14**	**51.14**			**644.39**	**667.92**

Table 6. 2022 Vegetation Management Program Plan vs. Actual - Scheduled Maintenance Trimming (SMT) and Maintenance Enhanced Tree Trimming (METT)
Northern Region (Berlin, Lancaster, Tilton, and Chocorua Area Work Centers)

Trim Year	Circuit	SMT Plan	SMT Actual	METT Plan	METT Actual	Primary Town	AWC	Plan Total Circuit Miles	Actual Total Circuit Miles
2022	3525X4_77	27.81	27.81	1.16	1.16	Milan	Berlin	28.97	28.97
2022	350X1_77	2.86	2.86	1.25	1.25	Gorham	Berlin	4.11	4.11
2022	350X2_77	7.92	7.92	11.05	11.05	Gorham	Berlin	18.97	18.97
2022	350X3_77	15.70	15.70	0.00	0.00	Shelburne	Berlin	15.70	15.70
2022	351X3_77	0.63	0.63	2.29	2.29	Gorham	Berlin	2.92	2.92
2022	351X4_77	20.10	20.10	0.00	0.00	Randolph	Berlin	20.10	20.10
2022	351X5_77	0.22	0.22	0.00	0.00	Randolph	Berlin	0.22	0.22
2022	3521_77	7.48	7.48	0.00	0.00	Berlin	Berlin	7.48	7.48
2022	348X8_76	7.92	7.92	0.00	0.00	Dalton	Lancaster	7.92	7.92
2022	351X1_76	4.43	4.43	0.00	0.00	Whitefield	Lancaster	4.43	4.43
2022	355X1_76	12.97	12.97	0.00	0.00	Northumberland	Lancaster	12.97	12.97
2022	355X2_76	3.02	3.02	0.00	0.00	Northumberland	Lancaster	3.02	3.02
2022	355X3_76	16.53	16.53	0.00	0.00	Stratford	Lancaster	16.53	16.53
2022	355X4_76	0.72	0.72	0.00	0.00	Stratford	Lancaster	0.72	0.72
2022	355X5_76	7.87	7.87	0.00	0.00	Stratford	Lancaster	7.87	7.87
2022	355X6_76	9.82	9.82	0.00	0.00	Columbia	Lancaster	9.82	9.82
2022	355X7_76	5.15	5.15	0.00	0.00	Columbia	Lancaster	5.15	5.15
2022	376X1_76	12.36	12.36	0.00	0.00	Whitefield	Lancaster	12.36	12.36
2022	376X2_76	4.50	4.50	0.00	0.00	Northumberland	Lancaster	4.50	4.50
2022	376X3_76	0.96	0.96	0.00	0.00	Northumberland	Lancaster	0.96	0.96
2022	376X4_76	0.91	0.91	0.00	0.00	Northumberland	Lancaster	0.91	0.91
2022	376X5_76	1.85	1.85	0.00	0.00	Northumberland	Lancaster	1.85	1.85
2022	376X6_76	6.83	6.83	2.09	2.09	Lancaster	Lancaster	8.92	8.92
2022	45W1_43	9.73	9.73	0.00	0.00	Piermont	Lancaster	9.73	9.73
2022	337X10_42	2.25	2.25	0.00	0.00	Tilton	Tilton	2.25	2.25
2022	345X5_41	3.91	3.91	2.79	2.79	Laconia	Tilton	6.70	6.70
2022	3798X2_42	14.99	14.99	0.00	0.00	Northfield	Tilton	14.99	14.99
2022	398X2_41	31.09	31.09	0.00	0.00	Belmont	Tilton	31.09	31.09
2022	27x1_41	0.00	31.16	0.00	6.72	Campton	Tilton	0.00	37.88
2022	39H1_42	6.83	6.83	0.00	0.00	Franklin	Tilton	6.83	6.83
2022	3116X_45	0.00	28.38	0.00	5.37	Madison	Chocorua	0.00	33.75
2022	3116x1_45	0.00	84.77	0.00	0.00	Tamorth	Chocorua	0.00	84.77
2022	19W1_45	43.53	43.53	2.55	2.55	Ossipee	Chocorua	46.08	46.08
Total		**290.89**	**435.20**	**23.18**	**35.27**			**314.07**	**470.47**

Table 7. 2022 MidCyle							
Division	**AWC**	**Town**	**Circuit**	**Line Cost**	**Planned**	**Actual**	**Voltage (kV)**
Northern	Tilton	Grafton	3114W1	$6,070	0.00	0.77	34.5
Eastern	Epping	Deerfield	3115X12	$1,374	0.00	0.17	34.5
Northern	Berlin	Berlin	3525X4	$4,249	0.00	0.54	34.5
Northern	Berlin	Berlin	3525X6	$1,106	0.00	0.14	34.5
Northern	Lancaster	Lancaster	376X	$1,622	0.00	0.21	34.5
Northern	Lancaster	Lancaster	376X1	$553	0.00	0.07	34.5
Eastern	Epping	Durham	377X1	$2,610	0.00	0.33	34.5
Eastern	Epping	Epping	377X11	$4,822	0.00	0.61	34.5
Eastern	Epping	Epping	377X16	$360	0.00	0.05	34.5
Eastern	Epping	Dover	399X1	$3,325	0.00	0.42	34.5
Eastern	Rochester	Milton	39W2	$6,478	0.00	0.82	34.5
Total				**$19,769.60**	**0.00**	**4.13**	

Table 8. 2022 Hot Spot Trim

Division	AWC	Town	Circuit	Line Cost	Planned	Actual	Voltage (kV)
Central	Bedford	Amherst	23X5	$2,179	0.00	0.28	34.5
Central	Bedford	Milford	23X6	$4,795	0.00	0.61	34.5
Eastern	Epping	Deerfield	3115X12	$1,424	0.00	0.18	34.5
Southern	Derry	Hampstead	3128X	$10,583	0.00	1.34	34.5
Eastern	Epping	Northwood	3137X	$2,029	0.00	0.26	34.5
Eastern	Epping	Northwood	3137X8	$747	0.00	0.09	34.5
Southern	Derry	Derry	3141X	$2,158	0.00	0.27	34.5
Central	Hooksett	Merrimack	3164X3	$5,666	0.00	0.72	34.5
Southern	Derry	Derry	32W5	$8,547	0.00	1.08	34.5
Central	Hooksett	Pembroke	334X18	$2,120	0.00	0.27	34.5
Eastern	Portsmouth	Portsmouth	339X1	$3,100	0.00	0.39	34.5
Central	Bedford	Goffstown	360X1	$6,319	0.00	0.80	34.5
Central	Hooksett	Hooksett	3615X1	$8,233	0.00	1.04	34.5
Eastern	Rochester	Farmington	362X	$1,635	0.00	0.21	34.5
Eastern	Rochester	Farmington	362X4	$514	0.00	0.07	34.5
Southern	Derry	Derry	365X	$4,570	0.00	0.58	34.5
Eastern	Rochester	Somersworth	371X1	$1,475	0.00	0.19	34.5
Eastern	Epping	Durham	377X1	$8,400	0.00	1.06	34.5
Eastern	Rochester	Madbury	3137x10_65	$8,800	0.00	1.10	34.5
Eastern	Epping	Epping	377X15	$3,863	0.00	0.49	34.5
Central	Hooksett	Manchester	393X1	$1,285	0.00	0.16	34.5
Eastern	Rochester	Rochester	392x1_61	$17,840	0.00	2.23	34.5
Eastern	Rochester	Dover	399X1	$514	0.00	0.07	34.5
Western	Newport	Claremont	60W1	$976	0.00	0.12	34.5
Eastern	Rochester	Strafford	63W1	$9,291	0.00	1.18	34.5
Eastern	Portsmouth	Portsmouth	64W1	$1,008	0.00	0.13	34.5
Eastern	Rochester	Northwood	3137x8_65	5,846.00	0.00	0.74	34.5
Eastern	Rochester	Nottingham	3137X_65	45,346.00	0.00	5.74	34.5
Eastern	Rochester	Northwood	63w1_65	3,160.00	0.00	0.40	34.5
Eastern	Rochester	Epping	377x15_65	9,243.00	0.00	1.17	34.5
Eastern	Rochester	Lee	377x2_65	19,750.00	0.00	2.50	34.5
Eastern	Rochester	Strafford	63w1_65	37,446.00	0.00	4.74	34.5
Eastern	Rochester	Raymond	3115x12_65	10,507.00	0.00	1.33	34.5
Eastern	Rochester	Portsmouth	2w5_63	8,927.00	0.00	1.13	34.5
Eastern	Rochester	Stratham	3191x3_63	10,507.00	0.00	1.33	34.5
Eastern	Rochester	Farmington	39w2_61	12,324.00	0.00	1.56	34.5
Eastern	Rochester	Rochester	362_61	12,640.00	0.00	1.60	34.5
Eastern	Rochester	Somersworth	371x1_61	7,900.00	0.00	1.00	34.5
Eastern	Rochester	Barrington	392x7_61	17,143.00	0.00	2.17	34.5
Eastern	Rochester	Durham	377x1_65	474.00	0.00	0.06	34.5
Eastern	Rochester	Wakefield	73w1_61	8,690.00	0.00	1.10	34.5
Total				**$327,971**	0.00	**41.49**	

Table 9. 2022 Customer Work	
Division	**Cost**
Central	$32,765.00
Eastern	$66,831.00
Western	$55,869.00
Northern	$3,263.00
Southern	$63,195.00
Total 2022 Tickets	**2,776**
Total	**$221,923.00**

Table 10. 2022 Vegetation Management Program Plan vs. Acutal - Right of Way (ROW) Maintenance

Division	AWC	Town(s)	ROW Name/Circuit	Planned Acerage	Actual Acerage	Plan Side Trimming (miles)	Actual Side Trimming (miles)	Voltage (kV)	ROW Width (Feet)	Vegetation Maintenance In Transmission
Central	Bedford	Merrimack	323 Reeds Ferry S/s - Kinsman In 323/53	35.39	0.00	0.00	0.00	34.5	100	0%
Central	Bedford	Manchester	3614x3 N. Union Tap	14.50	14.50	1.20	1.20	34.5	100	0%
Central	Hooksett	Manchester Hooksett	3614 Huse Rd S/S - Pine Hill S/S	26.42	26.42	2.18	2.18	34.5	100	0%
Central	Bedford	Goffstown Bedford New Boston	3194 Greggs S/S - New Boston Tracking Station S/S	68.12	68.12	5.62	5.62	34.5	100	0%
Southern	Derry	Derry Londonderry	365X Ash St S/S - Str. 365X/38	22.78	22.78	1.88	1.88	34.5	100	0%
Eastern	Rochester	Milton	3157 N. Rochester S/S - Sanbornville S/S	108.48	108.48	8.95	8.95	34.5	100	0%
Eastern	Rochester	Dover	399 Knox Marsh S/S - Str. 399/103B	12.12	12.12	1.00	1.00	34.5	100	0%
Eastern	Rochester	Dover	399 Str. 399/94A - 399/87	4.24	4.24	0.35	0.35	34.5	100	0%
Eastern	Rochester	Dover	399 Stark Ave Tap	7.00	7.00	0.60	0.60	34.5	100	0%
Western	Newport	Newport Sunapee	315 North Road S/S - Newport S/S	46.97	46.97	3.88	3.88	34.5	100	0%
Western	Keene	Keene	W110 Keene S/S - Bradford Road	34.30	34.30	2.83	2.83	34.5	100	0%
Western	Keene	Keene Marlboro	W-15 Str. 15/68 - Str. 15/95	25.33	25.33	2.09	2.09	34.5	100	0%
Western	Keene	Keene	W185 Str. 185/49 -	16.72	16.72	1.38	1.38	34.5	100	0%
Northern	Lancaster	Stratford Colebrook Columbia Stewarwstown	355 Canaan S/S - Lyman Falls S/S	313.22	0.00	25.84	25.84	34.5	100	0%
Northern	Lancaster	Northumberland	355x1 Lost Nation S/S - Lyman Fall S/S	100.19	0.00	8.27	8.27	34.5	100	0%
Northern	Lancaster	Northumberland	384 Lost Nation S/S - Groveton Paper	9.81	0.00	0.00	0.00	34.5	100	0%
Northern	Tilton	Franklin	Franklin Tap 3548 Franklin S/S - 3548x2 TAP	6.67	6.67	0.55	0.55	34.5	100	0%
Northern	Tilton	Tilton	337 Quint-T Tap: J-125 T ROW - Quint T S/S	11.15	11.15	0.92	0.92	34.5	100	0%
Northern	Tilton	Laconia	337 S Laconia Tap: S Laconia S/S - J-125 T ROW	14.07	14.07	1.16	1.16	34.5	100	0%
Northern	Tilton	Laconia	3625 Messer St S/S - Opeechee S/S	23.03	23.03	1.90	1.90	34.5	100	0%
Northern	Tilton	New Hampton Meredith Laconia	345 Opeechee S/S - Ayers Island S/S	203.87	203.87	16.82	16.82	34.5	100	0%
Northern	Tilton	Ashland New Hampton Center Harbor Meredith Moultonborough	338 Ashland S/S - NHEC Meredith	105.45	0.00	0.00	0.00	34.5	100	0%
Northern	Chocorua	Conway	336X K124 115KV - Swan Falls Hydro Freyburg	16.36	16.36	1.35	1.35	34.5	100	0%
Total				**1,226.19**	**662.13**	**88.77**	**88.77**			

Table 11. 2022 Vegetation Management Program Plan vs. Actual - Right of Way (ROW) Full Width Clearing

Division	AWC	Feeder/Circuit	Planned Miles	Actual Miles	ROW Width (Feet)	Primary Town	Voltage (kV)	Maintenance In Distribution
Northern	Tilton	319	7.40	5.35	100	Loudon	34.5	100%
Western	Keene	3178	0.00	0.20	100	Winchester	34.5	100%
Southern	Nashua	329	0.00	1.75	100	Nashua	34.5	100%
Northern	Tilton	317	0.00	7.80	100	Warner	34.5	100%
Central	Bedford	323	2.92	1.90	100	Merrimack	34.5	100%
Total			**10.32**	**17.00**				

Table 12. 2022 Vegetation Management Program Plan vs. Actual - Enhanced Tree Trimming (ETT)

Division	AWC	Circuit	Planned Miles	Actual Miles	Town	Tree SAIDI	Tree SAIFI
Central	Bedford	27W2_12	0.82	0.00	Goffstown	0.01	*
Central	Bedford	311X1_12	2.75	0.00	Henniker	0.31	*
Central	Bedford	3173X1_12	1.39	1.39	Hillsborough	0.46	*
Central	Bedford	3164X2_12	0.21	0.21	Merrimack	0.11	*
Central	Bedford	360X13_12	0.62	0.62	Goffstown	*	*
Central	Bedford	3151X9_12	0.35	0.35	Bedford	0.01	*
Central	Bedford	3142_12	0.38	0.38	Manchester	*	*
Central	Bedford	12W2_12	0.53	0.53	Manchester	*	*
Central	Bedford	12W3_12	0.42	0.42	Manchester	*	*
Southern	Nashua	23W7_22	1.88	0.00	Milford	0.02	*
Southern	Nashua	23H3_22	0.18	0.00	Milford	*	*
Central	Hooksett	14X188_11	1.00	1.00	Manchester	0.01	*
Western	Keene	313X4_36	0.38	0.38	Peterborough	*	*
Western	Keene	3140_36	2.94	2.94	Hillsborough	0.17	*
Western	Keene	55H1_36	1.50	1.50	Peterborough	0.02	*
Western	Keene	3155X9_22	0.95	0.95	Greenville	0.02	*
Western	Keene	53H1_32	0.00	0.53	Harrisville	0.11	*
Western	Newport	46W1_32	1.99	1.99	Claremont	0.02	*
Western	Newport	42X4_32	10.60	10.60	Goshen	*	*
Eastern	Epping	3191X5_65	0.65	0.65	Newmarket	*	*
Eastern	Epping	377X10_65	0.29	0.29	Epping	0.05	*
Eastern	Portsmouth	3102X6_63	1.40	0.00	Portsmouth	0.04	*
Eastern	Portsmouth	3850X7_63	1.71	1.71	Newington	0.02	*
Eastern	Portsmouth	71W3_63	2.56	0.00	Portsmouth	0.02	*
Eastern	Portsmouth	3112X1_63	2.11	2.11	North Hampton	0.01	*
Eastern	Rochester	73W1_61	1.77	1.77	Wakefield	0.21	*
Eastern	Rochester	392X2_61	0.43	0.43	Rochester	0.02	*
Eastern	Rochester	399X13_62	1.20	1.20	Dover	0.03	*
Eastern	Rochester	362X1_61	0.73	0.73	Rochester	0.01	*
Eastern	Rochester	392X4_61	0.26	0.26	Rochester	*	*
Eastern	Rochester	392X5_61	0.73	0.73	Rochester	*	*
Eastern	Rochester	3157X2_61	0.72	0.72	Rochester	*	*
Eastern	Rochester	54H1_61	0.68	0.68	Dover	*	*
Eastern	Rochester	42H2_61	1.32	1.32	Somersworth	*	*
Eastern	Rochester	340X1_61	1.62	1.62	Rochester	*	*
Eastern	Rochester	340X5_61	2.21	2.21	Rochester	*	*
Eastern	Rochester	340X2_61	0.30	0.30	Rochester	*	*
Eastern	Rochester	54H1_61	0.00	1.10	Dover	*	*
Eastern	Rochester	371x30_61	0.00	0.89	Somersworth	*	*
Northern	Tilton	20W1_42	2.41	2.41	Bristol	0.78	0.01
Northern	Tilton	31W2_64	1.28	1.28	Loudon	0.15	*
Northern	Tilton	337X8_42	0.94	0.94	Franklin	0.03	*
Northern	Tilton	3798X4__42	0.61	0.61	Tilton	0.02	*
Northern	Tilton	90H1_64	1.17	1.17	Pittsfield	*	*
Northern	Tilton	310X5_41	0.27	0.27	Gilford	0.01	*
Northern	Tilton	337X6_42	0.00	0.22	Franklin	*	*
Northern	Tilton	3548X11_42	0.00	0.24	Tilton	0.01	*
Northern	Tilton	39H1_42	0.00	1.43	Franklin	*	*
Northern	Tilton	337X7_42	0.00	1.83	Franklin	0.01	*
Northern	Tilton	337X10_42	0.00	1.22	Tilton	*	*
Total			**56.26**	**54.13**			

* Indicates there were no tree related outages in 2022.

Table 13. 2022 Vegetation Management Program Plan vs. Actual - Hazard Tree/Enhanced Tree Removal					
Division	**AWC**	**Circuit**	**Plan Number of Trees**	**Actual Number of Trees**	**Town**
Western	Newport	316		6	Sutton
Western	Newport	44h1		10	Newport
Western	Newport	17w1		5	Lyme
Eastern	Rochester	57w1		5	Wakefield
Eastern	Portsmouth	6h2		2	North Hampton
Eastern	Portsmouth	48H1		2	Rye
Southern	Derry	365x		25	Derry
Western	Newport	315x2		2	Newport
Northern	Tilton	30W2		10	Loudon
Western	Keene	3139X		30	Chesterfield
Western	Keene	76W7_31		14	Nelson
Eastern	Epping	63W1		1	Northwood
Central	Bedford	360X7_12		22	New Boston
Central	Bedford	33H1		3	Warner
Central	Bedford	3271X2		6	Weare
Southern	Derry	365X_23		3	Londonderry
Eastern	Epping	377X3_65		2	Epping
Eastern	Epping	3115X7		3	Raymond
Central	Bedford	85W1_12		2	New Boston
Western	Newport	316		6	Sutton
Southern	Derry	3141x23		26	Derry
Eastern	Rochester	57w1		2	Milton
Western	Keene	3155x4		30	New Ipswich
Northern	Chocorua	3116X1_45		41	Tamworth
Western	Keene	3139X		110	Chesterfield
Western	Keene	76W7_31		13	Sullivan
Northern	Tilton	30W2		14	Loudon
Northern	Tilton	3114W1		2	Danbury
Eastern	Epping	3115X12		7	Nottingham
Eastern	Epping	3137X		2	Northwood
Central	Bedford	33H1		19	Warner
Central	Bedford	3173X1		4	Deering
Central	Bedford	3108_12		4	Weare
Eastern	Epping	3115X9		3	Raymond
Eastern	Epping	377X3_65		7	Epping
Central	Bedford	85W1_12		12	New Boston

Northern	Chocorua	3116X1_45		65	Tamworth
Northern	Tilton	30W2		7	Loudon
Northern	Tilton	398X2_41		1	Belmont
Northern	Tilton	37H1		2	Franklin
Northern	Tilton	3222X		11	Gilford
Northern	Tilton	310X3		2	Gilford
Western	Keene	3139X		93	Chesterfield
Western	Keene	76W7_31		43	Nelson
Eastern	Epping	377X7_65		1	Brentwood
Southern	Derry	32W5_23		3	Derry
Southern	Derry	3115X		1	Chester
Eastern	Epping	377X3_65		6	Epping
Central	Bedford	3108_12		7	Weare
Central	Bedford	85W1_12		6	New Boston
Central	Hooksett	16W3_11		1	Auburn
Eastern	Rochester	315x2		30	Newport
Eastern	Rochester	17w1		5	Newport
Southern	Derry	3141x23		44	Derry
Eastern	Rochester	57w1		13	Milton
Eastern	Rochester	3157		8	Wakefield
Northern	Tilton	338		88	Meredith
Eastern	Rochester	38w1		3	Dover
Eastern	Rochester	362x2_61		3	Farmington
Northern	Tilton	3222X		20	Gilford
Northern	Tilton	37H1		4	Franklin
Northern	Chocorua	3116X1_45		11	Tamworth
Western	Keene	313X1		3	Peterborough
Western	Keene	76W7_31		24	Nelson
Western	Keene	24X1		8	Francestown
Eastern	Epping	377X19		10	Epping
Central	Bedford	85W1_12		5	New Boston
Southern	Derry	3141x23		80	Derry
Eastern	Portsmouth	3191x3		2	Greenland
Southern	Nashua	323		167	Merrimack
Northern	Chocorua	3116X1_45		17	Tamworth
Northern	Tilton	3222X		12	Gilford
Eastern	Epping	377X16		4	Epping
Northern	Chocorua	19W1_45		6	Ossipee

Northern	Chocorua	3116X_45		5	Ossipee
Central	Bedford	85W1_12		23	New Boston
Central	Bedford	360X11_12		7	Goffstown
Eastern	Portsmouth	3102x6		1	Portsmouth
Southern	Derry	3141x23		14	Derry
Eastern	Rochester	362x61		18	Farmington
Eastern	Rochester	32x6		1	Rochester
Eastern	Rochester	392x7		5	Barrington
Eastern	Rochester	3174x3		2	Farmington
Northern	Lancaster	348X20		27	Landaff
Northern	Tilton	1X4		2	Franklin
Northern	Tilton	337X3		2	Franklin
Northern	Tilton	31W1		10	Canterbury
Northern	Tilton	9W1		22	Laconia
Northern	Chocorua	3116X1_45		28	Tamworth
Eastern	Epping	3173X1		1	Fremont
Northern	Chocorua	19W1_45		5	Ossipee
Central	Bedford	360X11_12		15	Goffstown
Eastern	Rochester	392x7		38	Barrington
Southern	Derry	3141x23		26	Derry
Eastern	Rochester	3174x3		2	Farmington
Eastern	Rochester	32x98		2	Somersworth
Eastern	Rochester	362x2		3	Middleton
Eastern	Rochester	392x1		1	Rochester
Eastern	Rochester	32x6		2	Rochester
Northern	Tilton	3222X		6	Gilford
Northern	Tilton	1X4		6	Franklin
Northern	Tilton	31W1		12	Pittsfield
Northern	Chocorua	3116X1_45		19	Tamworth
Northern	Lancaster	348X20		8	Landaff
Northern	Tilton	30W2		10	Loudon
Eastern	Epping	3137X65		4	Barrington
Eastern	Epping	3137X		3	Nottingham
Eastern	Epping	3115X9		6	Raymond
Northern	Chocorua	336X		2	Conway
Central	Bedford	85W1_12		20	New Boston
Eastern	Rochester	39w2		5	Rochester
Eastern	Rochester	362x2		2	Middleton

Eastern	Rochester	392x7		62	Barrington
Eastern	Portsmouth	67w1		6	Rye
Eastern	Rochester	3174x4		9	New Durham
Eastern	Rochester	362x2		31	Middleton
Eastern	Rochester	39w2		24	Rochester
Eastern	Rochester	382X2		1	Rochester
Northern	Tilton	3222X		14	Gilford
Northern	Tilton	1X4		6	Franklin
Northern	Chocorua	3116X1_45		38	Tamworth
Northern	Tilton	30W2		7	Loudon
Northern	Tilton	2W2		5	Sanbornton
Eastern	Epping	3137X10		3	Madbury
Eastern	Epping	3115X12		56	Deerfield
Eastern	Epping	3137X65		7	Barrington
Southern	Derry	365X_23		4	Londonderry
Central	Bedford	85W1_12		31	New Boston
Eastern	Rochester	392X1_61		2	Barrington
Eastern	Rochester	38W2 _61		1	Dover
Eastern	Rochester	392x2		4	Rochester
Southern	Derry	365X_23		1	Londonderry
Southern	Derry	32W1_23		3	Derry
Southern	Derry	3818_23		2	Hampstead
Central	Bedford	85W1_12		28	New Boston
Eastern	Epping	3115X12		71	Deerfield
Eastern	Epping	3115X7		7	Raymond
Eastern	Epping	3115X14_65		6	Raymond
Northern	Chocorua	3116X1_45		19	Tamworth
Northern	Tilton	3222X		17	Gilford
Northern	Tilton	2W2		8	Sanbornton
Northern	Tilton	30W2		3	Loudon
Western	Newport	55w2		2	Claremont
Western	Newport	17w1		18	Lyme
Eastern	Rochester	39w2		29	Rochester
Eastern	Rochester	3174x4		23	Farmington
Western	Newport	42x3		18	Newport
Western	Newport	47w1		1	Cornish
Western	Newport	48W1_32		3	New London
Western	Newport	3410_32		8	Newbury

Northern	Tilton	30W2		21	Loudon
Eastern	Epping	3103X1		6	Fremont
Eastern	Epping	3115X14_65		2	Raymond
Southern	Derry	3128X		2	Litchfield
Central	Bedford	85W1_12		24	New Boston
Northern	Tilton	3222X		3	Gilford
Northern	Tilton	398X3		51	Belmont
Northern	Chocorua	3116X1_45		37	Tamworth
Western	Newport	3410		42	Bradford
Western	Newport	17wl43		3	Lyme
Eastern	Rochester	3174x4		36	New Durham
Eastern	Rochester	3174x5		21	Farmington
Eastern	Epping	3115X7		4	Raymond
Eastern	Epping	3103X1		4	Fremont
Central	Bedford	85W1_12		8	New Boston
Central	Bedford	360X11_12		4	Goffstown
Northern	Chocorua	3116X1_45		44	Tamworth
Northern	Tilton	3222X		8	Gilford
Northern	Tilton	30W2		17	Loudon
Western	Newport	3410_32		16	Newbury
Eastern	Rochester	39w2		39	Farmington
Eastern	Rochester	392x5		11	Rochester
Northern	Newport	26h2		25	Hillsborough
Eastern	Portsmouth	3172X2_63		11	Greenland
Eastern	Portsmouth	367x2		1	Portsmouth
Eastern	Portsmouth	3102x6		3	Portsmouth
Eastern	Rochester	392x1		7	Rochester
Eastern	Portsmouth	3850x7		6	Newington
Eastern	Portsmouth	67w1		1	Newington
Southern	Derry	3141x		11	Derry
Western	Newport	3410_32		11	Newbury
Northern	Tilton	30W2		24	Loudon
Northern	Tilton	3222X		19	Gilford
Northern	Tilton	310X5		1	Gilford
Northern	Chocorua	3116X_45		4	Ossipee
Northern	Chocorua	3116X1_45		29	Tamworth
Eastern	Epping	3103X1		3	Brentwood
Eastern	Epping	3137X65		4	Newmarket

Southern	Derry	3128X		1	Hudson
Eastern	Epping	3115X12		2	Deerfield
Central	Bedford	85W1_12		16	New Boston
Central	Bedford	360X11_12		6	New Boston
Northern	Tilton	1X4		6	Franklin
Northern	Tilton	30W2		17	Loudon
Western	Newport	3410_32		15	Bradford
Northern	Chocorua	3116X_45		21	Ossipee
Northern	Chocorua	3116X1_45		6	Tamworth
Northern	Chocorua	346X1		8	Freedom
Eastern	Epping	3115X14_65		14	Raymond
Southern	Derry	383X3		1	Hudson
Southern	Derry	32W1_23		2	Derry
Central	Bedford	85W1_12		32	New Boston
Western	Keene	24X1		24	Francestown
Eastern	Rochester	73w2		1	Wakefield
Eastern	Rochester	392X1_61		5	Rochester
Southern	Derry	3133x23		7	Hudson
Southern	Derry	3141x		48	Derry
Central	Hooksett	16W3_11		1	Auburn
Central	Hooksett	14X126A_11		1	Manchester
Western	Newport	3410_32		11	Bradford
Northern	Tilton	30W2		3	Loudon
Western	Keene	76W7_31		1	Nelson
Northern	Tilton	1X4		13	Franklin
Eastern	Epping	3103		1	Fremont
Southern	Derry	3128X		1	Londonderry
Central	Bedford	3173X1		3	Deering
Eastern	Epping	3137X		16	Lee
Southern	Nashua	3168x		7	Nashua
Central	Hooksett	16W3_11		1	Manchester
Central	Hooksett	3615X3_11		1	Manchester
Eastern	Rochester	73W1		2	Wakefield
Eastern	Rochester	371x1		4	Rochester
Eastern	Portsmouth	311x1		7	Portsmouth
Eastern	Portsmouth	367x2		6	Newington
Eastern	Portsmouth	2h1		1	Rye
Eastern	Portsmouth	3172x1		1	North Hampton

Eastern	Portsmouth	339x8		1	Portsmouth
Eastern	Portsmouth	367x2		2	Portsmouth
Eastern	Portsmouth	3112x3		3	North Hampton
Eastern	Portsmouth	3191x9		5	Greenland
Southern	Derry	3133x23		33	Windham
Eastern	Portsmouth	311x1		7	Portsmouth
Eastern	Portsmouth	367x2		6	Newington
Eastern	Portsmouth	2h1		1	Rye
Eastern	Portsmouth	3172x1		1	North Hampton
Eastern	Portsmouth	339x8		1	Portsmouth
Eastern	Portsmouth	367x2		2	Portsmouth
Eastern	Portsmouth	3112x3		3	North Hampton
Eastern	Portsmouth	3191x9		5	Greenland
Southern	Derry	3133x23		33	Windham
Western	Newport	3410_32		16	Newbury
Northern	Tilton	1X4		2	Franklin
Central	Bedford	3173X1		1	Deering
Southern	Derry	3133x23		46	Windham
Western	Newport	3410_32		6	Newbury
Western	Newport	48W1_32		11	New London
Western	Newport	60W1		3	Claremont
Northern	Tilton	1X4		1	Franklin
Northern	Tilton	319X1		2	Pittsfield
Western	Newport	60W1		3	Claremont
Western	Newport	48W1_32		10	New London
Northern	Tilton	1X4		18	Franklin
Eastern	Epping	3115X12		24	Deerfield
Central	Bedford	85W1_12		3	New Boston
Eastern	Epping	3103		1	Fremont
Central	Bedford	328X9		6	Goffstown
Southern	Derry	3133x23		33	Windham
Southern	Derry	3141x		7	Hampstead
Western	Newport	60W1		13	Claremont
Northern	Tilton	1X4		10	Franklin
Western	Newport	48W1_32		11	New London
Eastern	Epping	3115X12		16	Deerfield
Eastern	Epping	3162X1_65		1	Durham
Central	Bedford	85W1_12		11	New Boston

Southern	Derry	3133X		4	Windham
Western	Keene	3178		1	Hinsdale
Central	Bedford	317X2		8	Hopkinton
Eastern	Portsmouth	3191x5		6	Newmarket
Southern	Derry	3128x23		12	Londonderry
Southern	Derry	3141x		36	Sandown
Eastern	Portsmouth	2h1		1	Rye
Eastern	Portsmouth	3191x9		9	Greenland
Eastern	Portsmouth	67w1		2	Rye
Eastern	Portsmouth	339x8		4	Portsmouth
Eastern	Rochester	54H1 _61		1	Dover
Eastern	Rochester	362x2		1	Middleton
Southern	Derry	3141		2	Sandown
Southern	Derry	383x3		12	Hudson
Southern	Derry	3141x		11	Danville
Southern	Derry	3128x3		29	Londonderry
Northern	Tilton	1X4		6	Franklin
Western	Newport	60W1		8	Claremont
Western	Newport	48W1_32		21	New London
Western	Keene	3139X		7	Chesterfield
Western	Keene	76W7_31		10	Keene
Southern	Derry	32W5_23		5	Derry
Central	Bedford	3271X2		4	Weare
Central	Bedford	317X3		2	Webster
Southern	Derry	3133X		6	Auburn
Central	Bedford	3173X1		3	Deering
Eastern	Epping	3103X		15	Fremont
Central	Bedford	317X2		2	Hopkinton
Northern	Tilton	49w1		2	Pittsfield
Southern	Derry	3141x		12	Sandown
Eastern	Portsmouth	3112x3		6	North Hampton
Eastern	Portsmouth	2w4		2	Rye
Southern	Derry	32W5_23		3	Derry
Central	Bedford	3108_12		13	Weare
Southern	Derry	3115X		6	Auburn
Central	Bedford	3173X1		6	Deering
Eastern	Epping	63W1		7	Strafford
Eastern	Epping	377X16		13	Raymond

Southern	Derry	383x3		23	Hudson
Eastern	Portsmouth	2w4		2	Rye
Eastern	Portsmouth	67w1		2	Rye
Northern	Tilton	319		42	CHICHESTER
Central	Bedford	323		60	MERRIMACK
Western	Keene	51W1		5	Dublin
Western	Newport	316X1		12	Springfield
Southern	Derry	32W5_23		4	Derry
Central	Bedford	3271X1		13	Weare
Eastern	Epping	3162X1_65		1	Durham
Southern	Derry	3115X		10	Auburn
Central	Bedford	3173X1		15	Deering
Eastern	Epping	377X3_65		4	Epping
Western	Newport	318		100	Warner
Southern	Derry	3141x		14	Derry
Southern	Derry	32w1		8	Derry
Central	Bedford	323		71	Merrimack
Northern	Tilton	319		44	CHICHESTER
Western	Newport	316X1		49	Springfield
Western	Keene	3140X3		13	Washington
Eastern	Epping	63W1		10	Strafford
Southern	Derry	365X_23		1	Londonderry
Central	Bedford	3271X2		16	Weare
Eastern	Epping	3162X1_65		4	Durham
Eastern	Epping	377X3_65		7	Epping
Central	Bedford	23X6		9	Mont Vernon
Southern	Derry	3141x		12	Sandown
Southern	Derry	3141x		11	Derry
Southern	Nashua	24w1		15	Hollis
Central	Bedford	317		81	Warner
Northern	Tilton	319		49	CHICHESTER
Central	Bedford	323		82	MERRIMACK
Eastern	Portsmouth	67w1		9	Rye
Central	Bedford	317		117	Warner
Southern	Nashua	323x5		5	Merrimack
Southern	Nashua	23x5		5	Amherst
Southern	Derry	3133x23		7	Windham
Southern	Derry	3115x23		9	Cheter

Western	Newport	316X1		26	Springfield
Western	Newport	3410_32		9	Warner
Western	Keene	W131		24	Keene
Eastern	Epping	377X2		1	Newmarket
Eastern	Epping	3115X12		7	Deerfield
Eastern	Epping	63W1		3	Northwood
Eastern	Epping	3162X1_65		4	Durham
Western	Keene	3140X1		1	Stoddard
Eastern	Rochester	362x2_61		7	Farmington
Eastern	Rochester	3157x1		1	Wakefield
Eastern	Rochester	57w1		1	Milton
Central	Bedford	323		45	MERRIMACK
Northern	Tilton	319		35	LOUDON
Western	Keene	4W2		4	Swanzey
Eastern	Epping	63W1		16	Strafford
Eastern	Rochester	362_61		19	Farmington
Eastern	Rochester	392X1_61		2	Barrington
Southern	Nashua	314x14		36	Milford
Central	Bedford	317		105	Warner
Central	Bedford	323		77	MERRIMACK
Northern	Tilton	319		47	LOUDON
Eastern	Portsmouth	3112x3		4	North Hampton
Eastern	Portsmouth	6h2		2	Rye
Southern	Nashua	314x14		23	Milford
Southern	Nashua	3445x		16	Hollis
Eastern	Portsmouth	3111x1		2	Portsmouth
Southern	Nashua	3177x1		15	Nashua
Central	Bedford	317		120	Warner
Central	Bedford	3271X1		1	Weare
Eastern	Epping	377X3_65		11	Newmarket
Eastern	Epping	63W1		3	Strafford
Eastern	Rochester	362_61		31	Farmington
Eastern	Rochester	392x7		1	Barrington
Southern	Derry	3133X		1	Windham
Central	Bedford	3271X1		1	Goffstown
Central	Bedford	360X4		1	Goffstown
Central	Bedford	311X1		7	Henniker
Southern	Nashua	3445x		24	Merrimack

Southern	Nashua	353x4		12	Nashua
Southern	Nashua	3445x		12	Nashua
Central	Bedford	317		153	Warner
Eastern	Portsmouth	3112x3		4	North Hampton
Eastern	Portsmouth	Misc Trees		1	Greenland
Eastern	Portsmouth	3172x1		2	North Hampton
Eastern	Rochester	362		32	Farmington
Eastern	Epping	3137X1		1	Nottingham
Eastern	Epping	63W1		1	Strafford
Eastern	Epping	3152X_65		10	Durham
Eastern	Epping	13H2_65		13	Durham
Central	Bedford	33H1		3	Warner
Central	Bedford	360X4		1	Goffstown
Central	Bedford	85W1_12		1	New Boston
Central	Bedford	311X1		6	Henniker
Southern	Derry	3133X		2	Windham
Central	Bedford	317		121	Warner
Southern	Nashua	3445x		10	Merrimack
Central	Hooksett	44W2_11		1	Allenstown
Northern	Tilton	319		43	Loudon
Central	Bedford	323		44	Merrimack
Eastern	Epping	377X3_65		3	Epping
Eastern	Epping	63W1		8	Strafford
Southern	Derry	32W5_23		3	Derry
Southern	Derry	3133X		16	Windham
Central	Bedford	311X1		7	Henniker
Central	Bedford	85W1_12		20	New Boston
Central	Bedford	3271X2		3	Weare
Southern	Nashua	314X4_22		14	Milford
Southern	Nashua	3445x		18	Hollis
Southern	Nashua	314x23		4	Wilton
Central	Bedford	317		105	Warner
Eastern	Rochester	3714X14		2	Dover
Eastern	Rochester	3174X4		8	New Durham
Eastern	Rochester	362X2		7	Milton
Northern	Berlin	350X3_77		6	Gorham
Northern	Berlin	350X2_77		5	Gorham
Northern	Tilton	319X1		15	Barnstead

Northern	Tilton	31W1		4	Loudon
Northern	Chocorua	3116X1_45		21	Tamworth
Northern	Chocorua	3218		12	Madison
Western	Keene	76W7_31		20	Nelson
Eastern	Epping	3103X1		7	Fremont
Eastern	Epping	3112X15		18	Deerfield
Eastern	Epping	3152X_65		1	Durham
Southern	Derry	3818		4	Hampstead
Central	Bedford	311X2		16	Henniker
Central	Bedford	85W1		13	New Boston
Eastern	Rochester	54h2		2	Dover
Eastern	Portsmouth	2w5		1	Portsmouth
Eastern	Portsmouth	48h2		1	Rye
Southern	Nashua	314x14		12	Wilton
Southern	Nashua	314x14		36	Milford
Central	Bedford	317		118	Warner
Central	Hooksett	44W2_11		5	Allenstown
Eastern	Rochester	362X2		24	New Durham
Eastern	Rochester	56h2		2	Dover
Central	Bedford	323		86	Merrimack
Northern	Tilton	319		50	Loudon
Northern	Berlin	3525X4_77		6	Dummer
Northern	Berlin	350X2_77		22	Gorham
Northern	Tilton	319X1		9	Barnstead
Northern	Lancaster	12W1		21	Haverhill
Northern	Chocorua	3116X1_45		54	Tamworth
Northern	Chocorua	3218		20	Madison
Western	Keene	3155X9		18	Temple
Western	Keene	3173		10	Deering
Southern	Derry	32W5		4	Derry
Southern	Derry	3818		1	Hampstead
Central	Bedford	23X2		3	Amherst
Central	Bedford	311X2		12	Henniker
Central	Bedford	85W1		12	New Boston
Eastern	Epping	63W1		9	Strafford
Eastern	Epping	13H2_65		5	Durham
Eastern	Portsmouth	2h1		4	Rye
Eastern	Portsmouth	3172x1		10	North Hampton

Eastern	Portsmouth	2w5		3	Portsmouth
Eastern	Portsmouth	367		1	Farmington
Eastern	Portsmouth	2w5		1	New Castle
Eastern	Portsmouth	54h2		2	Dover
Central	Bedford	317		106	Warner
Southern	Nashua	3211x		21	Hudson
Southern	Nashua	72w1		8	Hudson
Southern	Nashua	3144x1		7	Hudson
southern	Derry	3128X_23		150	Londonerry
southern	Derry	3128X_23		50	Litchfield
Eastern	Rochester	73w1		3	Wakefield
Eastern	Rochester	362X2		8	Middleton
Eastern	Rochester	392X1_61		2	Rochester
Eastern	Rochester	392X7		1	Rochester
Northern	Tilton	319		36	Loudon
Eastern	Portsmouth	2w5		7	Portsmouth
Central	Bedford	317		167	Warner
Western	Keene	53h1		16	Harrisville
Eastern	Portsmouth	67w1		3	Rye
Eastern	Portsmouth	48h1		3	Rye
Eastern	Portsmouth	3191x3		3	Greenland
Southern	Nashua	72w1		12	Hudson
Southern	Nashua	3144x3		28	Hudson
Northern	Lancaster	12W1		28	Haverhill
Northern	Chocorua	3116X_45		32	Ossipee
Northern	Chocorua	3116X1_45		35	Tamworth
Northern	Tilton	31W1		12	Loudon
Western	Keene	76W7_31		8	Nelson
Eastern	Epping	63W1		30	Strafford
Eastern	Epping	3152X_65		4	Durham
Eastern	Epping	3137X80_65		1	Northwood
Eastern	Epping	377X20		5	Epping
Southern	Derry	3133X		6	Windham
Southern	Derry	32W5		8	Derry
Central	Bedford	360X1		1	Goffstown
Central	Bedford	3271X2		5	Weare
Central	Bedford	311X2		4	Henniker
Central	Bedford	85W1		22	New Boston

Eastern	Rochester	73W1		8	Wakefield
Eastern	Rochester	57W1		2	Milton
Eastern	Rochester	362X2		22	Middleton
Northern	Chocorua	3116X_45		36	Tamworth
Northern	Chocorua	3116X1_45		21	Tamworth
Northern	Lancaster	12W1		30	Haverhill
Northern	Berlin	351X4_77		16	Randolph
Northern	Berlin	350X2_77		4	Gorham
Northern	Tilton	31W1		7	Loudon
Western	Newport	3410_32		8	Newbury
Western	Keene	76W7_31		10	Keene
Southern	Derry	3133X		15	Windham
Southern	Derry	3141X_23		2	Derry
Central	Bedford	3108_12		8	Weare
Central	Bedford	3271X1		22	Dunbarton
Central	Bedford	85W1		30	Goffstown
Eastern	Epping	377X1_65		11	Durham
Eastern	Epping	377X19		3	Epping
Eastern	Epping	377X16		10	Epping
Eastern	Epping	377X20		4	Epping
Western	Newport	317		115	Warner
Eastern	Rochester	371x4		1	Dover
Eastern	Rochester	54h2		1	Dover
Eastern	Portsmouth	3112x1		1	North Hampton
Eastern	Portsmouth	3112x3		4	North Hampton
Eastern	Portsmouth	3172x1		1	North Hampton
Eastern	Portsmouth	3112x3		3	North Hampton
Eastern	Portsmouth	3172x2		9	North Hampton
Southern	Nashua	314X4_22		72	Wilton
Northern	Tilton	319		44	Loudon
Eastern	Rochester	362X2 _61		13	Middleton
Eastern	Rochester	73W2		1	Wakefield
Eastern	Rochester	38W2 _61		2	Dover
Eastern	Rochester	57W1		5	Milton
Eastern	Rochester	73W1		1	Brookfield
Northern	Chocorua	3116X_45		61	Tamworth
Northern	Berlin	351X4_77		32	Randolph
Northern	Lancaster	45W1_43		15	Piermont

Western	Newport	42X3_32		26	Newport
Western	Keene	4W2		9	Nelson
Eastern	Epping	377X18_65		6	Epping
Eastern	Epping	377X3_65		2	Epping
Eastern	Epping	377X1_65		10	Durham
Eastern	Epping	3115X9		2	Raymond
Southern	Derry	3133X		13	Derry
Central	Bedford	3108_12		37	Weare
Central	Bedford	85W1		12	New Boston
Eastern	Portsmouth	339x3		2	Portsmouth
Eastern	Portsmouth	16W4_63		1	Portsmouth
Eastern	Portsmouth	48h1		2	Rye
Eastern	Portsmouth	2w5		5	Rye
Eastern	Portsmouth	2w4		2	North Hampton
Eastern	Portsmouth	3112x3		4	North Hampton
Eastern	Portsmouth	3172x1		10	North Hampton
Eastern	Portsmouth	67w1		18	Rye
Northern	Tilton	3548x11		7	Tilton
Northern	Tilton	98h1		6	Franklin
Central	Bedford	317		120	Warner
Central	Hooksett	44W2_11		2	Pembroke
Western	Newport	42X4_32		8	Newport
Western	Keene	313X4_36		0.38	Peterborough
Western	Keene	3140_36		8	Hillsborough
Eastern	Rochester	399X12		1	Dover
Eastern	Rochester	54H4		2	Dover
Northern	Tilton	319		43	Loudon
Northern	Chocorua	3116X_45		40	Ossipee
Northern	Berlin	351X4_77		28	Randolph
Northern	Lancaster	376X2_76		15	Northumberland
Western	Newport	42X3_32		16	Newport
Eastern	Epping	3137X10_65		5	Madbury
Eastern	Epping	377X1_65		12	Lee
Eastern	Epping	377X20		20	Epping
Eastern	Epping	3115X9		9	Nottingham
Southern	Derry	3133X		8	Windham
Central	Bedford	23X5		17	Mont Vernon
Central	Bedford	3108_12		8	Weare

Central	Bedford	85W1		14	New Boston
Eastern	Portsmouth	6H2		1	Rye
Eastern	Portsmouth	48H1		4	Rye
Eastern	Portsmouth	Misc Trees		4	Greenland
Eastern	Portsmouth	362		1	Farmington
Eastern	Portsmouth	371x22		3	Somersworth
Eastern	Portsmouth	371x14		4	Somersworth
Eastern	Portsmouth	371x15		2	Dover
Southern	Nashua	314x23		13	Wilton
Southern	Nashua	3217x		60	Hollis
Southern	Nashua	314x23		17	Temple
Northern	Tilton	337X8_42		28	Franklin
Central	Bedford	317		144	Warner
Central	Hooksett	44W2_11		2	Allenstown
Central	Hooksett	334X8_11		2	Pembroke
Western	Newport	42X4_32		33	Newport
Northern	Tilton	319		37	Loudon
Central	Bedford	317		138	Hopkinton
Southern	Nashua	314x23		24	Wilton
Western	Newport	42X4_32		33	Newport
Northern	Chocorua	19W1_45		15	Ossipee
Northern	Lancaster	355X7_76		11	Columbia
Northern	Berlin	351X4_77		9	Randolph
Northern	Lancaster	12W1		8	Haverhill
Western	Newport	42X3_32		9	Sunapee
Western	Keene	3155X9		20	New Ipswich
Western	Keene	76W7_31		6	Nelson
Eastern	Epping	3137X10_65		10	Madbury
Eastern	Epping	377X1_65		3	Lee
Eastern	Epping	377X20		23	Epping
Southern	Derry	3141X_23		4	Hampstead
Eastern	Epping	3115X9		12	Raymond
Central	Bedford	317X2		8	Hopkinton
Central	Bedford	85W1		40	New Boston
Central	Bedford	3271X1		4	Goffstown
Central	Bedford	3108_12		7	Weare
Central	Hooksett	44W2_11		6	Allenstown
Western	Newport	42X4_32		15	Newport

Eastern	Rochester	3174		38	Farmington
Northern	Tilton	319		39	Loudon
Southern	Nashua	314x15		28	Wilton
Southern	Nashua	314x23		57	Wilton
Western	Newport	42X4_32		15	Newport
Northern	Chocorua	19W1_45		9	Ossipee
Northern	Lancaster	355X3_76		14	Stratford
Northern	Lancaster	355X5_76		14	Stratford
Northern	Lancaster	12W1		22	Haverhill
Northern	Berlin	350X3_77		5	Shelburne
Western	Keene	3155X9		26	Temple
Southern	Derry	3133X		21	Hudson
Southern	Derry	3141X_23		3	Chester
Central	Bedford	33H1		18	Warner
Central	Bedford	85W1		5	Goffstown
Eastern	Epping	3137X10_65		19	Madbury
Eastern	Epping	3615X1		5	Deerfield
Eastern	Epping	3137X80_65		3	Northwood
Eastern	Epping	3137X8		8	Madbury
Eastern	Rochester	3175X1		1	Milton
Eastern	Rochester	73W2		2	Wakefield
Eastern	Rochester	362X2		21	Middleton
Central	Hooksett	34W18_11		4	Pembroke
Western	Newport	42X4_32		4	Goshen
Eastern	Rochester	3174		32	Farmington
Eastern	Hooksett	319		43	Loudon
Southern	Nashua	314x15		108	Wilton
Southern	Nashua	3155x7		1	Mason
Southern	Nashua	314X4_22		1	WIlton
Northern	Tilton	90H1		16	Pittsfield
Eastern	Rochester	362X2 _61		24	Farmington
Eastern	Rochester	38W1		3	Dover
Western	Newport	42X4_32		4	Goshen
Northern	Berlin	351X4_77		9	Randolph
Northern	Berlin	350X2_77		4	Gorham
Northern	Lancaster	355X2_76		24	Northumberland
Northern	Lancaster	376X5_76		30	Northumberland
Northern	Tilton	30W2		9	Loudon

Western	Keene	3155X9		26	Temple
Eastern	Epping	337X10		6	Epping
Eastern	Epping	3137X10_65		42	Madbury
Eastern	Epping	3137X8		8	Northwood
Southern	Derry	3133X		11	Windham
Southern	Derry	3115X		7	Chester
Central	Bedford	3750		4	Litchfield
Central	Bedford	85W1		4	New Boston
Central	Bedford	33H1		13	Warner
Central	Hooksett	34W18_11		2	Pembroke
Western	Newport	42X4_32		17	Lempster
Eastern	Rochester	3174X4_61		22	Farmington
Eastern	Rochester	38W2 _61		6	Dover
Northern	Lancaster	376X2_76		21	Northumberland
Northern	Tilton	30W2		16	Loudon
Western	Keene	3155X9		19	New Ipswich
Western	Keene	33W1		30	Hancock
Eastern	Epping	63W1		8	Northwood
Eastern	Epping	3137X10_65		16	Madbury
Eastern	Epping	3137X		6	Nottingham
Eastern	Epping	3137X8		32	Northwood
Central	Bedford	85W1		31	New Boston
Southern	Derry	3133X		11	Windham
Southern	Derry	3141X_23		2	Derry
Southern	Derry	3115X		17	Chester
Eastern	Hooksett	3174		457	Milton/Farmington
Northern	Tilton	319		522	Loudon
Southern	Nashua	3891		2	Nashua
Western	Keene	350 Upper Jaffrey Road		1	Dublin
Eastern	Rochester	Oak Street		1	Dover
Northern	Tilton	90H1		51	Pittsfield
Western	Newport	46W1_32		14	Claremont
Western	Newport	42X4_32		7	Lempster
Eastern	Rochester	392H7		1	Barrington
Eastern	Rochester	73W2		1	Wakefield
Eastern	Rochester	392H1		2	Rochester
Eastern	Rochester	73W1		1	Brookfield
Eastern	Rochester	371X4		1	Rochester

Eastern	Rochester	392X2		1	Rochester
Eastern	Rochester	3174X4		32	Farmington
Northern	Lancaster	376X3_76		10	Northumberland
Northern	Lancaster	12W1		9	Haverhill
Northern	Tilton	30W2		10	Loudon
Northern	Berlin	350X2_77		30	Gorham
Northern	Berlin	350X3_77		8	Shelburne
Western	Keene	313X7		8	Antrim
Western	Keene	33W1		6	Hancock
Western	Keene	W175		12	Keene
Eastern	Epping	63W1		2	Northwood
Eastern	Epping	3137X10_65		2	Madbury
Eastern	Epping	3137X8		32	Northwood
Eastern	Epping	3137X		19	Nottingham
Southern	Derry	3133X		6	Windham
Central	Bedford	3750		5	Litchfield
Central	Bedford	85W1		7	New Boston
Central	Bedford	311X6		10	Henniker
Southern	Nashua	314X4_22		45	Lyndeborough
Southern	Nashua	314x15		62	Wilton
Northern	Tilton	90H1		51	Pittsfield
Western	Newport	46W1_32		14	Claremont
Western	Newport	42X4_32		7	Lempster
Central	Hooksett	34W18_11		1	Pembroke
Western	Newport	46W1_32		17	Claremont
Northern	Tilton	3137x2		23	Pittsfield
Northern	Tilton	90H1		44	Pittsfield
Southern	Nashua	3211x		15	Hudson
Western	Newport	316		38	New London
Northern	Tilton	337x6		10	Franklin
Southern	Nashua	353x3		2	Nashua
Southern	Nashua	3168x		4	Nashua
Southern	Nashua	3175x1		4	Hudson
Southern	Nashua	314x15		112	Wilton
Western	Newport	46W1_32		17	Claremont
Northern	Tilton	3137x2		23	Pittsfield
Northern	Tilton	90H1		44	Pittsfield
Northern	Berlin	350X3_77		8	Shelburne

Northern	Lancaster	376X2_76		12	Northumberland
Northern	Lancaster	348X20		26	Landaff
Northern	Berlin	350X2_77		30	Randolph
Western	Newport	42X3_32		13	Newport
Western	Keene	3140X3		5	Stoddard
Western	Keene	4W2		7	Swanzey
Western	Keene	3155X9		8	Temple
Western	Keene	4W1		8	Richmond
Western	Keene	3120		5	Fitzwilliam
Western	Keene	76W7_31		6	Gilsum
Central	Bedford	3108X1_12		20	New Boston
Eastern	Epping	377X3_65		3	Epping
Southern	Derry	3133X		6	Windham
Central	Bedford	3750		2	Litchfield
Central	Bedford	85W1		10	New Boston
Eastern	Epping	3137X		27	Northwood
Eastern	Epping	3137X80		29	Northwood
Central	Hooksett	34W18_11		2	Pembroke
Eastern	Rochester	377X15		12	Somersworth
Eastern	Rochester	73W1		1	Brookfield
Eastern	Rochester	392X1_61		25	Farmington
Eastern	Rochester	392X4		4	Farmington
Northern	Tilton	3137x2		12	Pittsfield
Western	Newport	46W1_32		3	Claremont
Northern	Tilton	337x6		17	Franklin
Southern	Nashua	329		59	Nashua
Southern	Nashua	3155x7		21	Wilton
Southern	Nashua	3155x8		8	Mason
Southern	Nashua	3175x1		31	Hudson
Southern	Nashua	3211x		4	Hudson
Western	Newport	42X3_32		20	Newport
Western	Keene	3155X9		23	Temple
Northern	Chocorua	3218		3	Tamworth
Northern	Tilton	30W2		30	Loudon
Northern	Berlin	3525X4_77		33	Milan
Northern	Berlin	351X4_77		16	Randolph
Eastern	Epping	377X3_65		6	Epping
Eastern	Epping	377X15		17	Epping

Eastern	Epping	3137X		11	Nottingham
Southern	Derry	3133X		9	Windham
Central	Bedford	360X6		8	New Boston
Central	Bedford	360X11		11	Goffstown
Central	Bedford	3271X1		2	Dunbarton
Eastern	Rochester	377X15		11	Somersworth
Eastern	Rochester	73W1		21	Wakefield
Northern	Tilton	3137x2		12	Pittsfield
Western	Newport	46W1_32		3	Claremont
Central	Hooksett	44W2_11		2	Pembroke
Northern	Tilton	90H2		80	Pittsfield
Northern	Tilton	3137x2		11	Epsom
central	Bedford	3115X		13	Chester
Northern	Chocorua	346X1		14	Freedom
Northern	Tilton	30W2		21	Loudon
Northern	Lancaster	355X2_76		6	Northumberland
Northern	Lancaster	376X4_76		2	Northumberland
Northern	Berlin	3525X4_77		15	Milan
Western	Keene	3155X9		33	Temple
Eastern	Epping	377X3_65		12	Epping
Eastern	Epping	377X6		12	Newmarket
Eastern	Epping	3137X		7	Nottingham
Southern	Derry	3133X		13	Windham
Central	Bedford	85W1		30	New Boston
Southern	Nashua	329		56	Nashua
Southern	Nashua	3155x7		24	Greenville
Southern	Nashua	3155x7		40	Mason
Northern	Tilton	90H2		80	Pittsfield
Northern	Tilton	3137x2		11	Epsom
Eastern	Epping	3115X		13	Chester
Eastern	Rochester	377X15		22	Somersworth
Eastern	Rochester	362X4 _61		7	Farmington
Eastern	Rochester	362X2 _61		10	Brookfield
Eastern	Rochester	73W1		13	Wakefield
Central	Hooksett	34W18_11		3	Pembroke
Western	Keene	3155X4		58	New Ipswich
Western	Keene	382X2		83	Rindge
Western	Keene	28W1		47	Jaffery

Western	Keene	382X3		49	Jaffery
central	Bedford	3115X		65	Chester
Northern	Tilton	90H2		163	Pittsfield
Northern	Tilton	3137x2		105	Pittsfield
Western	Keene	3155X4		58	New Ipswich
Western	Keene	382X2		83	Rindge
Western	Keene	28W1		47	Jaffery
Western	Keene	382X3		49	Jaffery
central	Bedford	3115X		65	Chester
Northern	Tilton	90H2		163	Pittsfield
Northern	Tilton	3137x2		105	Pittsfield
Northern	Berlin	3525X4_77		31	Dummer
Northern	Chocorua	3116X1_45		14	Tamworth
Northern	Tilton	30W2		20	Loudon
Western	Newport	55W2		4	Claremont
Western	Keene	3155X9		36	Temple
Central	Bedford	85W1		37	New Boston
Central	Bedford	3271X1		7	Dunbarton
Central	Bedford	335X1		9	Hooksett
Southern	Derry	3133X		15	Windham
Eastern	Epping	377X3_65		4	Epping
Eastern	Epping	380X1		6	Durham
Eastern	Epping	377X6		26	Newmarket
Eastern	Epping	3137X		4	Lee
Southern	Nashua	316		39	New London
Southern	Nashua	3155x7		41	Greenville
Southern	Nashua	3155x7		18	Mason
Southern	Nashua	329		63	Nashua
Eastern	Rochester	362X2 _61		7	Brookfield
Eastern	Rochester	73W1		3	Brookfield
Eastern	Rochester	362x2_61		7	Brookfield
Eastern	Rochester	73W1_61		3	Brookfield
Northern	Berlin	3525X4_77		34	Dummer
Northern	Tilton	30W2		3	Loudon
Northern	Tilton	2W2		13	Sanbornton
Northern	Chocorua	19W1_45		22	Ossipee
Western	Keene	3155X9		21	Temple
Western	Newport	55W2		6	Claremont

Southern	Derry	3133X		20	Windham
Eastern	Epping	3103X1		1	Fremont
Eastern	Epping	3137X1		11	Nottingham
Central	Bedford	3271X1		11	Dunbarton
Southern	Nashua	3155x7		23	Greenville
Southern	Nashua	316		32	New London
Eastern	Portsmouth	2h1		1	Rye
Eastern	Portsmouth	67w1		19	Rye
Southern	Nashua	329		118	Nashua
Northern	Tilton	337x7		21	Franklin
Eastern	Rochester	392X_61		1	Rochester
Eastern	Rochester	362X2 _61		12	Brookfield
Eastern	Rochester	38W2 _61		18	Barrington
Eastern	Rochester	392X1_61		1	Rochester
Eastern	Rochester	3148X3_61		1	Rollinsford
Eastern	Rochester	392X1_61		2	Farmington
Central	Hooksett	34W18_11		5	Epsom
Northern	Tilton	2W2		87	Sanbornton
Northern	Tilton	30W2		14	Loudon
Northern	Berlin	3525X4_77		5	Dummer
Northern	Chocorua	19W1_45		13	Ossipee
Western	Keene	3155X9		24	Temple
Western	Newport	3410_32		6	Bradford
Southern	Derry	3133X		16	Windham
Central	Bedford	328X1		9	Goffstown
Central	Bedford	3271X1		7	Dunbarton
Eastern	Epping	3137X80		5	Northwood
Eastern	Epping	3137X1		10	Nottingham
Southern	Nashua	329		92	Hollis
Southern	Nashua	3155x7		58	Mason
Eastern	Portsmouth	2h1		10	Rye
Eastern	Portsmouth	3172x1		9	North Hampton
Eastern	Portsmouth	67w1		22	Rye
Southern	Nashua	316		28	Bradford
Central	Hooksett	34W18_11		3	Epsom
Eastern	Rochester	362X2 _61		5	Farmington
Eastern	Rochester	362X3 _61		4	Farmington
Eastern	Rochester	362X4 _61		3	Farmington

Central	Hooksett	34W18_11		3	Epsom
Northern	Tilton	2W2		6	Sanbornton
Northern	Berlin	3525X4_77		8	Milan
Northern	Tilton	30W2		16	Loudon
Northern	Tilton	2W1		18	Belmont
Northern	Chocorua	19W1_45		12	Ossipee
Western	Newport	60W1		1	Claremont
Central	Bedford	3271X1		10	Dunbarton
Southern	Derry	3133X		10	Hudson
Central	Bedford	3140X2		1	Hillsborough
Eastern	Epping	3137X1		6	Lee
Eastern	Epping	3191X1		2	Durham
Eastern	Rochester	392X1_61		10	Strafford
Southern	Nashua	329		91	Hollis
Eastern	Portsmouth	48h2		2	Rye
Eastern	Portsmouth	2w5		1	New Castle
Eastern	Portsmouth	6h2		3	North Hampton
Eastern	Portsmouth	3172x1		2	North Hampton
Eastern	Portsmouth	2h1		3	Rye
Southern	Nashua	3155x7		52	Mason
Eastern	Portsmouth	67w1		28	Rye
Eastern	Portsmouth	48h1		1	Rye
Eastern	Portsmouth	2w4		14	Rye
Eastern	Rochester	362X2 _61		5	Farmington
Eastern	Rochester	3148X3_61		2	Rollinsford
Central	Hooksett	34W18_11		1	Epsom
Eastern	Rochester	3157X1		1	Brookfield
Eastern	Rochester	3148X3_61		3	Rollinsford
Eastern	Rochester	34W4		3	Rochester
Eastern	Rochester	362X2 _61		3	Milton
Eastern	Rochester	392X1_61		6	Strafford
Eastern	Rochester	51H1_61		6	Rollinsford
Eastern	Epping	3137X80		1	Northwood
Eastern	Epping	3137X80		2	Lee
Eastern	Epping	3152X		3	Durham
Eastern	Epping	377X3_65		4	Epping
Northern	Tilton	30W2		7	Loudon
Eastern	Epping	377X2		7	Newmarket

Northern	Chocorua	19W1_45		11	Ossipee
Southern	Derry	3133X		12	Windham
Central	Bedford	3271X1		12	Dunbarton
Northern	Tilton	2W2		25	Sanbornton
Southern	Nashua	3115x		28	Auburn
Northern	Tilton	2W1		31	Belmont
Southern	Nashua	3115x		54	Mason
Eastern	Portsmouth	67w1		69	Rye
Southern	Nashua	329		98	Hollis
Eastern	Rochester	362X2 _61		1	Farmington
Eastern	Rochester	392X1_61		3	Rochester
Eastern	Rochester	3148X3_61		7	Rollinsford
Eastern	Portsmouth	2w5		1	Portsmouth
Western	Keene	3139X		2	Chesterfield
Northern	Tilton	30W2		8	Loudon
Northern	Chocorua	19W1_45		13	Ossipee
Northern	Tilton	2W1		13	Belmont
Eastern	Portsmouth	67w1		13	Rye
Eastern	Portsmouth	48h2		15	Rye
Northern	Tilton	2W2		35	Sanbornton
Eastern	Portsmouth	3112		53	Greenland
Eastern	Rochester	3174X2_61		1	Farmington
Eastern	Rochester	3148X3_61		4	Rollinsford
Eastern	Rochester	399X15		5	Dover
Eastern	Epping	3115X1		2	Raymond
Western	Keene	76W7_31		4	Nelson
Northern	Tilton	30W2		5	Loudon
Eastern	Epping	3115X12		8	Deerfield
Northern	Tilton	2W1		9	Belmont
Southern	Derry	3133X		10	Windham
Northern	Chocorua	19W1_45		19	Ossipee
Central	Bedford	3271X1		24	Dunbarton
Northern	Tilton	2W2		70	Sanbornton
Eastern	Rochester	3157X1		1	Wakefield
Eastern	Rochester	362X1		1	Rochester
Eastern	Rochester	362X2		1	Wakefield
Eastern	Rochester	3148X3_61		2	Rollinsford
Eastern	Rochester	399X15		2	Dover

Eastern	Rochester	392X4		7	Rochester
Northern	Tilton	2W1		3	Belmont
Southern	Derry	3133X		5	Windham
Western	Keene	33W1_36		8	Hancock
Northern	Chocorua	19W1_45		18	Ossipee
Northern	Tilton	2W2		46	Sanbornton
Central	Bedford	3271X1		47	Weare
Western	Keene	51W1		112	Dublin
Western	Keene	313x3		45	Jaffrey
Western	Keene	24x1		29	Francestown
Western	Keene	w15		5	Keene
Western	Keene	313X8		12	Jaffrey
Western	Keene	76W7		43	Gilsum
Central	Bedford	335X2		62	Hooksett
Central	Bedford	3108		35	Weare
Central	Bedford	85W1		16	New Boston
Southern	Derry	3128X		197	Derry
Southern	Nashua	3159X		82	Amherst
Western	Keene	313X7		19	Antrim
Western	Newport	3140		12	Warner
Western	Keene	28W1		7	Jaffrey
Western	Keene	313x1		8	Greenfield
Western	Keene	24x1		3	Francestown
Southern	Derry	3128x		11	Derry
Southern	Nashua	40w1		4	Hollis
Southern	Nashua	3154x2		9	Nashua
Southern	Nashua	3154x1		2	Nashua
Southern	Nashua	314x15		46	Wilton
Central	Bedford	312x23		11	Hooksett
Central	Hooksett	3615x1		34	Deerfield
Total			**0**	**18,012**	

Public Service Company of New Hampshire d/b/a Eversource Energy
2023 Vegetation Management Plan for review by the Department of Energy

November 15, 2022

Consistent with the terms of the Settlement Agreement in Docket No. DE 19-057, Public Service Company of New Hampshire d/b/a Eversource Energy ("Eversource" or the "Company") is providing the vegetation management plan for calendar year 2023 for review by and discussion with the Department of Energy staff.[1]

As required by Section 6.2 of the Settlement Agreement, in November of each year Eversource is to file a proposed vegetation management plan setting out the proposed vegetation management work for the coming calendar year. That plan filing shall include the following:

A. A summary of budgeted costs by program (i.e. ETT/Hazard Tree Removal, SMT and Full-Width ROW Clearing).
B. Detailed information on each program as follows:
    i. ETT/Hazard Tree Removal: Town; Circuit Number; Total Circuit Miles; Scheduled Circuit Miles; and Circuit Ranking by SAIDI and SAIFI (Tree Related only).
    ii. SMT (Scheduled Maintenance Trimming, Mid-Cycle Trimming, Side Trimming and Customer Request Work, Hot Spot / Trouble Work, and Maintenance Enhanced Tree Trimming (METT)): Town; Circuit Number; Total Circuit Miles; and Scheduled Circuit Miles.
    iii. SMT (ROW Maintenance Mowing and Side Trimming): ROW Number; ROW Name; Voltage; and Total Acreage; and the percentage of the clearing attributable to distribution if transmission ROW.
    iv. ROW Clearing: ROW Number; ROW Name; Voltage; and Total Miles; ROW Width; and the percentage of the clearing attributable to distribution if transmission ROW.

Included in the narrative below is a presentation of the proposed plan and estimated budgets using information known at this time. The detailed information on each program is provided at the end of the narrative and reflects the scheduled miles for the Company to maintain a 5-year maintenance cycle, in line with the 5-year cycle pruning requirements of the Commission's rule Puc 307.10.

Additionally, in the detailed plan at the end of this report the Company has included the relevant circuits and miles planned for 2023. The Company looks forward to discussing this plan with the Department of Energy.

2023 Projected Budget:

The table below provides a summary of the 2023 planned vegetation management program. The $37,425,259 budget is a gross budget and does not include any reimbursements received from telephone company providers related to scheduled maintenance trim and hazard tree removal activities. Police and flagging expenses are included in the cost of the individual programs and paid for by the contractors. Therefore, effective with this November filing, the police and flagging work will no longer be tracked as a separate program in the proposed plan as the information is no longer available.

[1] In light of the transfer of much of the Commission's personnel and responsibilities to the Department of Energy as of July 1, 2021, Eversource is providing this plan to the Department staff instead of the Commission's staff.

Eversource 2023 Planned Vegetation Management (VM) Activities	
VM Activity	**Cost**
Scheduled Maintenance Trim (SMT)	$20,874,282
Maintenance ETT	$2,250,977
Mid-Cycle Work	$200,000
Customer Request Work	$200,000
Hot Spot Work	$400,000
ROW Maintenance Work Sub Transmission (Mowing/Side Trim)	$1,000,000
Distribution SMT Total	**$24,925,259**
Full Width Clearing of ROW	$600,000
Hazard Tree Removal	$11,000,000
Enhanced Tree Trimming (ETT)	$900,000
Vegetation Management Program Total	**$37,425,259**

Scheduled Maintenance Trimming ("SMT") Program

The Company's SMT cycle is based on a 12,000-mile distribution overhead system. The Company's plan for 2023 is to have tree contractors perform maintenance (SMT and METT) on 2,399 miles and the budgets were constructed around that plan. The table immediately below shows the proposed SMT budget and miles. The other programs will each have a respective table. This work is part of the 4-year contract that was put out to bid in 2020.

Eversource SMT Miles		
Total Miles = 2,158.21	Region	2023 Miles
Budget $20,874,282	SOUTHERN	351.71
	CENTRAL	314.41
	WESTERN	630.29
	EASTERN	334.40
	NORTHERN	527.4
	Total Annual Miles	2,158.21

Maintenance Enhanced Tree Trimming ("METT") Program

METT is Maintenance Enhanced Tree Trimming performed on miles that were previously subject to Enhanced Tree Trimming ("ETT"). The amount of METT changes each year based on the circuit schedule. As with the SMT, this work was also part of the 4-year contract that was put out to bid in 2020.

Eversource METT Miles		
Total Miles = 240.88	**Region**	**2023 Miles**
Budget $2,250,977	**SOUTHERN**	28.67
	CENTRAL	23.35
	WESTERN	89.38
	EASTERN	44.3
	NORTHERN	55.18
	Total Annual Miles	**240.88**

Mid-Cycle Work

Mid-cycle work is additional work completed on a circuit in between the standard cycle under the SMT. This can include vine removal and "cycle buster" type trees, which are trees that grew or failed before the next scheduled maintenance trimming. This program is an emergent one and the budget is minimal as the Company is prioritizing the SMT cycle work with the funding available. If the need arises to address circuit miles with this application, the Company will work within the allocated budget to redistribute these funds. In 2023, the Company plans on utilizing analytics provided by existing Eversource data sourcing capabilities, such as Power BI, to assist with this program. Circuit patrols will be performed by Company Arborists to determine vegetative growth since the last trim cycle, along with a windshield survey of tree health. Because of the emergent nature of this work, proposed circuit miles cannot be estimated.

Eversource Mid-Cycle Work		
Total Miles = TBD	**Region**	**2023 Miles**
Budget $200,000	**SOUTHERN**	
	CENTRAL	
	WESTERN	
	EASTERN	
	NORTHERN	
	Total Annual Miles	**TBD**

Customer Request Work

Customer Request work is generated in an effort to address an issue identified by a customer rather than as part of the work scheduled or planned in the annual circuit miles. Most often, these are trimming requests on a customer's service line to their home. The amount of Customer Request work changes every year. Eversource has encouraged customers through social media and the Company's website to consider hiring professionals to handle their tree concerns. However, due to the prevalence of invasive insects and diseases in New Hampshire, the Company sometimes learns about problematic trees, or groups of trees from customers. The work needed to mitigate the issues posed by these trees is often performed by Eversource's contractors. Eversource has estimated $200,000 of expense related to Customer Request work for 2023. Because of the emergent nature of this work, proposed circuit miles cannot be estimated.

Eversource Customer Request Work		
Total Miles = TBD	**Region**	**2023 Miles**
Budget $200,000	**SOUTHERN**	
	CENTRAL	
	WESTERN	
	EASTERN	
	NORTHERN	
	Total Annual Miles	**TBD**

Hot Spot Work

Hot Spot work addresses tree growth in between cycles. This type of work can also be called "just in time" trimming because the proposed circuit miles have not yet been identified. The Company will utilize Power BI, as well as the ESRI platform applications to track tree related outages. Based on the data from these systems, circuits with tree related outages are targeted for assessment to develop a strategy for the removal or trimming of vegetation. Eversource has estimated $400,000 of expense related to Hot Spot work for 2023. Because of the emergent nature of this work, proposed circuit miles cannot be estimated.

Eversource Hot Spot Work		
Total Miles = TBD	**Region**	**2023 Miles**
Budget $400,000	**SOUTHERN**	
	CENTRAL	
	WESTERN	
	EASTERN	
	NORTHERN	
	Total Annual Miles	**TBD**

ROW Maintenance Work

The ROW Maintenance work includes mowing and side trimming. The acres listed will be mowed. During the quality control inspection of the mowing, any tree limbs that are within 20 feet of the line will be noted and a crew will be sent to remove the limb(s).

Eversource ROW Maintenance Work		
Total Acres = 1,070.05	Region	2023 Acres
Budget $1,000,000	SOUTHERN	13.33
	CENTRAL	118.29
	WESTERN	0
	EASTERN	258.39
	NORTHERN	680.04
	Total Annual Acres	1,070.05

Full Width Clearing of ROW

This program identifies ROW's where enhanced clearing will benefit customer reliability and increase safety for our workers. This work is competitively bid annually. The tree contractor clears brush and trees to the full easement width. At the edge of the easement, the bordering trees are trimmed from ground to sky. The Company's Arborists work closely with abutting property owners to communicate the work needed.

Eversource Full Width Clearing of ROW	Region	2023 Miles
Total Miles = 7.2	SOUTHERN	
Budget $600,000	CENTRAL	4.4
	WESTERN	
	EASTERN	
	NORTHERN	2.8
	Total Annual Miles	7.2

Hazard Tree Program

The Company reviews the SMT circuits for hazard trees. Hazard trees are trees that should be removed rather than trimmed due to their potential to impact the electric system. It is a best practice to remove the dead, diseased and dying trees while trimming the circuit. The customers on whose property the hazard trees grow, and who, therefore, own the hazard trees, are engaged in a conversation for both the SMT and the Hazard Tree programs. The customers who own hazard trees, provide approval before any Hazard Tree work takes place on their property. The total number of trees removed will be compiled monthly.

Additionally, the trees of New Hampshire have been impacted by many biotic factors over the last several years. These issues primarily include repeated drought years, Emerald Ash Borer ("EAB"), Spongy Moth, Hemlock Wooly Adelgid, Hemlock Looper, Elongate Hemlock Scale, White Pine Needle Disease ("WPND"),

and the residual effect of the listed factors. Such issues will mean more trees that are standing dead or in declining health along the roadside forest. The Company believes that adherence to a maintenance cycle, along with an aggressive hazard tree removal program, are the key components to a successful and reliable Vegetation Management program. In 2022, the Company collaborated with the state of New Hampshire Forests and Lands to share mapping data. Forest health personnel shared aerial photography of Spongy Moth, and EAB infestations. The maps that included the data were overlayed on our circuit maps, which we then used to target the affected trees that would impact our electric system. This is an innovation that Eversource vetted last year and has now been implemented as part of our maintenance program.

Eversource Hazard Tree Work Miles		
Total Miles = 2,381.93	**Region**	**2023 Miles**
Budget $11,000,000	**SOUTHERN**	380.38
	CENTRAL	337.76
	WESTERN	719.67
	EASTERN	378.7
	NORTHERN	565.42
	Total Annual Miles	**2,381.93**

Enhanced Tree Trimming ("ETT") Program

The Company has identified 43.91 miles of three phase circuits for ETT in 2023. These miles will be competitively bid annually. If the pricing allows for additional miles to be done, the Company will review the circuit list and identify more miles.

Eversource ETT Miles		
Total Miles = 43.91	**Region**	**2023 Miles**
Budget $900,000	**SOUTHERN**	9.07
	CENTRAL	10.14
	WESTERN	6.85
	EASTERN	10.12
	NORTHERN	7.73
	Total Annual Miles	**43.91**

2023 Plan Overview:

There are several topics addressed in this year's Plan, including the contracted workforce, the 4-year contract, the cost drivers, technology, and strategy.

Eversource's Vegetation Management programs are managed by experienced professionals, including both Eversource employees and third-party contractors. However, there are some longer-term concerns with the work force. There are very few programs in high school or college to attract students to Arboriculture/Forestry. This has had a direct impact on the work the Company does, the availability of trained individuals to perform the work, and a material impact on costs, as has been seen in recent bids and explained further below.

It is a difficult job performed in all types of weather, usually aloft. The salary for tree trimmers is not commensurate with many other professions. The tree worker contingent in both New Hampshire and New England has shrunk, which oftentimes requires the larger contractors to bring in outside workers to complete their assigned work. There are additional costs associated with "travel crews". Another issue, which is hard to quantify monetarily, is the speed in which the travel crews get acclimated to New Hampshire trees, terrain, and weather. The 2023 Plan includes seven tree contractors, which should provide a workforce large enough to complete the work.

The Company commenced a 4-year contract for SMT and METT in New Hampshire. The first two years of that contract (2021 and 2022) had "locked in" prices. For the 2023 Plan, when pricing was no longer fixed, the bids received were significantly higher than expected as tree contractors requested cost increases for contracted tree work. Eversource's Procurement team, along with the Eversource Vegetation Management leadership team across New Hampshire, Connecticut, and Massachusetts, met with each tree contractor individually to discuss pricing and refine the bids. However, the final pricing in this competitive process required the Company to adjust the budget for SMT and METT.

In addition, the Company reduced certain incumbent contractors' market share of the maintenance work due to the cost increases. One of the benefits of a multi-year contract is thought to be workforce stability. Whether it has been the pandemic, inflation, supply chain constraints, or other pressures that have caused the contractors to struggle with obtaining a loyal roster of crews, we are not sure, but the fact remains it is an unstable market and has become more expensive to contract vegetation management than ever before.

Each contractor listed the same items for cost increase justification: labor, fuel, equipment, supply chain, and the biggest driver - police traffic control. The police traffic control work is the largest risk for the contractors when bidding, as every New Hampshire town has different requirements. Factors include, but are not limited to, how many officers are required on each road/job, for what duration, do they require a cruiser, and the hourly rates.

These contractor cost increases have contributed to the significant budget pressure in the 2023 Vegetation Management Plan. The cost of performing traditional tree maintenance on 20 percent of the Eversource circuit miles in 2023, in accordance with the Commission's rule Puc 307.10, will impact the funding of other important Vegetation Management programs.

The New Hampshire Vegetation Management team will continue to evaluate options to reduce the budget pressure by reviewing analytics, technology, equipment, and processes, including utilizing the ESRI platform

to create mobile applications, which streamline the Company's tree trimming work. The ESRI platform tools' functionality is easy to use and modify. The Company is confident that Eversource Arborists and third-party contractor personnel will adapt to this technology relatively quickly.

In addition, the Power BI application is a program that our Arborist team uses weekly to evaluate both historical and current circuit performance data. The tree reliability issues for each circuit are analyzed prior to sending crews out to trim and/or remove trees.

Both applications, ESRI and Power BI, will be part of effectively redefining workloads and deploying crew resources for our team, which will be critical to achieve cost containment and reduce the budget pressure where possible. When executing our plan, Arborists focus on the backbones of the circuits first, as a tree related outage on a backbone circuit would impact more customers. Eversource Arborists will also patrol the laterals of each circuit starting with devices that have a high customer count. We currently use this strategy to profile circuits for Hazard Tree removals. These applications (Power BI and ESRI) will now become another tool available to our Arborists, to assist when scheduling maintenance miles to comply with the 5-year cycle mandate.

Eversource continued to look for solutions with different types of equipment in 2022 by engaging with three separate contractors who brought mechanical trimmers (aka Jaraff, or SkyTrim) onto the system, to utilize for selected miles of SMT. These units consist of a hydraulic boom mounted on a large tractor. At the end of the boom is an articulating circular saw. This tool works well in the right application, but it will probably not replace human occupied bucket trucks. Another new tool was a Rotor Blade helicopter unit. The helicopter has 10 saws attached to the helicopter and the unit can be used to "hedge/side trim" difficult- to- access ROW lines. Both units have a future in New Hampshire as "work force multipliers" and the Company will continue to explore other tools as they become available to improve vegetation management in New Hampshire.

Eversource 2023 Planned Vegetation Management Activities Detail

Eversource 2023 Planned Vegetation Management (VM) Activities	
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Vegetation Management Program Total	$37,425,259

2023 Scheduled Maintenance Trimming					
AWC	TOWN	CIRCUIT	TOTAL CIRCUIT MILES	SMT MILES	METT MILES
Rochester	Rochester	28H1	1.98	-	1.63
Rochester	Rochester	28H2	2.77	2.77	-
Rochester	Dover	3148x4	4.27	3.50	-
Rochester	Milton	3157X2	1.48	0.76	-
Rochester	Milton	3157X4	0.4	-	-
Rochester	Farmington	3174X3	1.41	1.41	-
Rochester	Dover	32X3	15.48	9.73	5.75
Rochester	Somersworth	32X5	0.04	-	-
Rochester	Rochester	32X6	3.87	2.71	1.16
Rochester	Somersworth	32X98	0.22	0.22	-
Rochester	Rochester	340X2	0.29	0.29	-
Rochester	Farmington	362	19.45	8.09	10.82
Rochester	Somersworth	371X1	31.75	29.27	-
Rochester	Somersworth	371X22	3.13	3.13	-
Rochester	Somersworth	371X3	0.29	0.29	-
Rochester	Rochester	34w4	15.82	14.66	-
Rochester	Rochester	392x3	0.82	0.43	-
Rochester	Rochester	392x9	1.21	0.14	-
Rochester	Rochester	53W2	7.58	7.58	-
Rochester	Rochester	39w2	32.38	31.50	0.88
Rochester	Rochester	53w1	4.78	3.04	-
Rochester	Rochester	34w2	12.29	12.29	-
Epping	Brentwood	3103X	23.87	15.65	-
Epping	Fremont	3103X1	49.01	38.30	10.17
Epping	Strafford	63w1	77.78	77.04	0.74
Portsmouth	Portsmouth	3102X8	0.04	0.04	-
Portsmouth	Portsmouth	3102x6	2.59	1.19	-
Chocorua	Conway	333X	35.32	22.17	13.15
Chocorua	Madison	3218	48.2	48.20	-
Nashua	Hollis	24W1	28.01	20.98	7.03
Nashua	Nashua	3144X1	16.84	12.53	4.30
Nashua	Milford	314X54	10.71	5.90	4.40
Nashua	Nashua	3177XA	19.82	18.04	1.78
Nashua	Nashua	389X3	4.87	4.87	-
Nashua	Hudson	72W1	10.99	10.80	0.03
Nashua	Milford	3143X	4.7	4.70	-
Nashua	Milford	23W7	7.5	5.46	2.02
Nashua	Nashua	3144	8.38	8.38	-
Nashua	Nashua	3177X	18.39	10.37	8.02
Nashua	Milford	23H3	3.06	1.96	1.09
Nashua	Nashua	3223	2.63	2.63	-
Derry	Derry	32W1	20.1	20.10	-
Derry	Derry	32W3	4.21	4.21	-
Derry	Derry	32W4	15.1	15.10	-
Derry	Derry	32W5	26.53	26.53	-
Derry	Londonderry	3128X	68.62	68.62	-
Derry	Hampstead	3818	69.4	69.40	-
Derry	Derry	365X	16.18	16.18	-
Derry	Londonderry	3184X	24.95	24.95	-

Region	SMT Miles	METT Miles	Total Miles
Eastern	334.4	44.3	378.7
Southern	351.71	28.67	380.38
Northern	527.4	55.18	582.58
Central	314.41	23.35	337.76
Western	630.29	89.38	719.67
Total	**2,158.21**	**240.88**	**2,399.09**

2023 Scheduled Maintenance Trimming					
AWC	TOWN	CIRCUIT	TOTAL CIRCUIT MILES	SMT MILES	METT MILES
Hooksett	Manchester	3673	9.4	9.40	-
Hooksett	Manchester	14W1	7.38	7.38	-
Hooksett	Manchester	1W2	0.01	0.01	-
Hooksett	Manchester	23W1	1.59	1.59	-
Hooksett	Manchester	23W3	7.24	7.24	-
Hooksett	Manchester	23W4	5.14	5.14	-
Hooksett	Manchester	24H1	1.89	1.89	-
Hooksett	Manchester	24H2	1.42	1.42	-
Hooksett	Manchester	3119	0.14	0.14	-
Hooksett	Manchester	321X11	5.16	3.31	1.85
Hooksett	Manchester	387X7	0.27	0.27	-
Hooksett	Manchester	393X1	1.86	1.86	-
Hooksett	Manchester	393X2	3.36	2.48	0.88
Hooksett	Manchester	7W1	9.27	7.06	2.21
Bedford	Merrimack	323X5	35.96	34.08	1.88
Bedford	Warner	33H1	47.17	47.17	-
Bedford	Bedford	3W2	24.49	18.73	5.76
Bedford	Manchester	3138X	11.34	11.34	-
Bedford	Merrimack	3164	0.1	0.10	-
Bedford	Merrimack	3164X1	0.16	0.16	-
Bedford	Merrimack	3164X4	0.04	0.04	-
Bedford	Merrimack	3164X6	0.03	0.03	-
Bedford	Merrimack	3164X7	0.01	0.01	-
Bedford	Merrimack	3197X	14.63	13.68	0.95
Bedford	Bedford	323X10	0.02	0.02	-
Bedford	Merrimack	323X6	0.24	0.24	-
Bedford	Merrimack	323X7	0.24	0.24	-
Bedford	Merrimack	323X9	0.04	0.04	-
Bedford	Bedford	324X2	0.2	0.20	-
Bedford	Weare	3271	0.09	0.09	-
Bedford	Goffstown	3271X5	11.78	11.78	-
Bedford	Goffstown	328	0.46	0.46	-
Bedford	Goffstown	328X11	0.33	0.33	-
Bedford	Goffstown	328X2	2.55	2.55	-
Bedford	Goffstown	328X6	0.22	0.22	-
Bedford	Goffstown	328X7	0.67	0.67	-
Bedford	Hooksett	335X3	4.31	4.31	2.62
Bedford	Hooksett	335X56	2.42	2.42	-
Bedford	Goffstown	360X6	0.13	0.13	-
Bedford	Goffstown	360X8	0.23	0.23	-
Bedford	Goffstown	360X9	3.72	3.72	-
Bedford	Bedford	3W1	22.31	19.61	2.70
Bedford	Merrimack	5W1	0.37	0.37	-
Bedford	Merrimack	5W2	16.46	11.96	4.50
Bedford	Deering	3173X1	68.29	68.29	-
Bedford	Goffstown	27W2	12	12.00	-
Keene	Peterborough	313x1	99.92	87.83	12.09
Keene	Hinsdale	3178	44.93	43.38	1.55
Keene	Troy	3120	63.78	48.96	14.82
Keene	Keene	w110	37.5	35.11	2.39

2023 Scheduled Maintenance Trimming					
AWC	TOWN	CIRCUIT	TOTAL CIRCUIT MILES	SMT MILES	METT MILES
Keene	Keene	76w5	31.1	20.80	10.30
Keene	Keene	w175	26.23	26.23	-
Keene	Keene	w9	10.41	10.41	-
Keene	Hinsdale	3178x3	20.75	20.75	-
Keene	Keene	76w1	21.09	19.30	1.79
Keene	Troy	3120x1	19.33	17.83	1.50
Keene	Keene	w2	12.28	12.28	-
Keene	Keene	w1	2.3	1.80	0.50
Newport	Claremont	55w2	25.04	21.10	3.94
Newport	Claremont	75w2	51.66	41.69	9.97
Newport	Claremont	60w1	31.36	28.36	3.00
Newport	Claremont	74w1	18.45	18.45	-
Newport	Newport	44H1	39.53	28.53	11.00
Newport	Claremont	54w1	9.97	6.88	3.09
Newport	Grantham	316x1`	154.04	140.60	13.44
Tilton	Laconia	29X1	15.27	12.89	2.38
Tilton	Franklin	337x21	0.03	0.03	-
Tilton	Franklin	337X3	0.03	0.03	-
Tilton	Franklin	337X5	0.03	0.03	-
Tilton	Laconia	398X1	0.08	0.08	-
Tilton	Northfield	3798X1	0.62	0.62	-
Tilton	Franklin	1X4	26.11	22.01	4.10
Tilton	Loudon	31W2	38.18	38.18	-
Tilton	Laconia	310X2	0.71	0.71	-
Tilton	Laconia	310X6	0.12	0.12	-
Tilton	Franklin	337x4	0.13	0.13	-
Tilton	Belmont	398X3	30.92	23.28	7.64
Tilton	Pittsfield	3137X2	8.65	8.65	-
Tilton	Guilford	3222X	52.05	42.02	10.03
Tilton	Loudon	30W2	46.89	46.89	-
Tilton	Loudon	31W1	63.52	58.01	5.51
Tilton	Barnstead	319X1	100.22	89.87	10.35
Lancaster	Lancaster	59W1	35.3	33.78	1.52
Lancaster	Lancaster	59W2	39.36	38.16	1.20
Lancaster	Colebrook	5H1	20.08	14.68	5.40
Lancaster	Colebrook	5H2	15.86	12.27	3.59
Lancaster	Haverhill	12W1 from 41	63.48	60.02	3.46
Berlin	Berlin	21H1	7.1	7.10	-
Berlin	Berlin	21H2	2.18	2.18	-
Berlin	Berlin	21H4	6.08	6.08	-
Berlin	Berlin	21H5	6.95	6.95	-
Berlin	Gorham	351X9	2.63	2.63	-
Total			**2,416.90**	**2,158.21**	**240.88**

2023 Distribution ROW Maintenance Mowing			
Central AWCs	**Circuit/Location**	**Voltage**	**Acres**
Hooksett	334G Allenstown Pembroke Bow	34.5 kV	64.72
Bedford	328 Goffstown	34.5 kV	53.57
Southern AWCs	**Circuit/Location**	**Voltage**	**Acres**
Nashua	314X12 Milford	34.5 kV	13.33
Eastern AWCs	**Circuit/Location**	**Voltage**	**Acres**
Epping	3137 Chichester Pittsfield Epsom Northwood	34.5 kV	176.95
Portsmouth	3105 Greenland North Hampton Rye	34.5 kV	38.05
Portsmouth	3106 North Hampton	34.5 kV	11.88
Portsmouth	3111 Portsmouth Greenland	34.5 kV	31.51
Northern AWCs	**Circuit/Location**	**Voltage**	**Acres**
Lancaster	355 Stewartstown Colebrook Columbia Stratford North Umberland	34.5 kV	408.44
Lancaster	384 North Umberland	34.5 kV	9.81
Tilton	338 Ashland New Hampton Center Harbor Meredith Moultonborough	34.5 kV	261.79

Note: All ROWS are considered Distribution.

Region	Acres
Central	118.29
Southern	13.33
Eastern	258.39
Northern	680.04
Total	1,070.05

2023 Full Width Clearing of ROW						
AWC	**Feeder**	**Scheduled Miles**	**Total ROW Miles**	**ROW Width**	**Primary Town**	**Voltage**
Bedford	323	1.1	5.28	100'	Merrimack	34.5 kV
Bedford	317	3.3	23.46	100'	Warner	34.5 kV
Tilton	319	2.8	11.37	100'	Pittsfield	34.5 kV
Total Miles		**7.2**	**40.11**			

Note: All ROWS are considered Distribution.

2023 Enhanced Tree Trimming (ETT)

AWC	Circuit	Planned ETT Miles	Town	Total Circuit Miles	Circuit Ranking by Tree SAIDI	Circuit Ranking by Tree SAIFI
Berlin	21H1	0.91	Berlin	6.94	368	398
Berlin	21H2	0.66	Berlin	6.4	NA	NA
Berlin	21H4	0.8	Berlin	6.32	NA	NA
Berlin	21H5	0.7	Berlin	10.91	300	329
Berlin	351X9	0.73	Gorham	2.72	307	275
Chocorua	3218	3.13	Silver Lake	48.67	193	237
Tilton	398X1	0.08	Laconia	0.08	NA	NA
Tilton	3798x1	0.45	Tilton	0.62	NA	NA
Tilton	310x2	0.02	Laconia	0.71	NA	NA
Tilton	310x6	0.12	Guilford	0.12	NA	NA
Tilton	337x4	0.13	Franklin	0.13	NA	NA
Newport	74W1	0.74	Claremont	18.45	238	330
Keene	W2	0.44	Keene	12.26	373	390
Keene	W9	0.75	Keene	13.1	219	292
Keene	W175	0.15	Keene	28.9	116	248
Keene	3178X3	4.13	Hinsdale	20.9	290	316
Keene	3178	0.64	Hinsdale	46.1	62	54
Rochester	28H1	0.66	Rochester	2.6	NA	NA
Rochester	3148x4	0.77	Dover	4.27	395	388
Rochester	3157X4	0.4	Milton	0.4	NA	NA
Rochester	32X5	0.04	Rochester	0.14	NA	NA
Rochester	371X1	2.48	Rochester Somersworth	43.1	129	219
Rochester	34w4	1.16	Rochester	19.9	144	158
Rochester	392x3	0.39	Rochester	0.82	NA	NA
Rochester	392x9	1.07	Rochester	1.21	NA	NA
Rochester	53w1	1.74	Rochester	4.78	NA	NA
Portsmouth	3102x6	1.41	Portsmouth	2.7	NA	NA
Hooksett	3673	1.39	Manchester	10	357	428
Hooksett	14W1	0.65	Manchester	7.5	350	419
Hooksett	23W1	0.77	Manchester	1.8	NA	NA
Hooksett	23W3	0.44	Manchester	8.3	438	441
Hooksett	23W4	0.3	Manchester	5.2	418	438
Hooksett	24H1	0.6	Manchester	2	NA	NA
Hooksett	24H2	0.66	Manchester	1.42	NA	NA
Hooksett	3119	0.14	Manchester	0.14	NA	NA
Hooksett	393X1	0.78	Manchester	2.6	237	240
Bedford	3138X	1.18	Bedford	17.3	324	384
Bedford	3164X1	0.16	Merrimack	0.16	NA	NA
Bedford	3164X4	0.04	Merrimack	0.04	NA	NA
Bedford	3164X6	0.03	Merrimack	0.03	NA	NA
Bedford	323X10	0.02	Bedford	0.02	NA	NA
Bedford	323X6	0.24	Merrimack	0.24	NA	NA
Bedford	323X9	0.04	Merrimack	0.04	NA	NA
Bedford	3271	0.19	Goffstown Weare	10.37	387	350
Bedford	3271X5	1.47	Goffstown	12.2	367	372
Bedford	335X56	0.66	Hooksett	6.4	NA	NA
Bedford	360X9	0.21	New Boston	5.4	430	327
Bedford	5W1	0.17	Merrimack	0.37	NA	NA
Derry	3128X	1.14	Londonderry	76.45	34	228
Derry	3818	1.65	Danville	90.4	41	189
Nashua	389x3	2.75	Hudson	6.9	NA	NA
Nashua	3143x	1.25	Amherst	7.5	295	250
Nashua	3144	1.08	Hudson Nashua	20.2	291	294
Nashua	9H1	0.38	Nashua	0.38	NA	NA
Nashua	3223	0.82	Nashua	4.4	NA	NA
	Total Miles	**43.91**				

Note: N/A indicates that the circuit was not ranked on the 2020 Tree Related Outages Circuit Hit List. The Circuit Ranking by Tree will be updated in the Company's March 1, 2023 Vegetation Management Plan and Performance Report.

Region	ETT Scheduled Miles
Northern	7.73
Western	6.85
Eastern	10.12
Central	10.14
Southern	9.07
Total	**43.91**

EVERSOURCE

Annual Reliability Report

2022 Report to the NH Public Utilities Commission

March 1, 2023

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2022 Reliability Report

Executive Summary

EVERSOURCE
2022 Reliability Report

Executive Summary

This report has been prepared in accordance with the terms of the October 9, 2020 Settlement Agreement approved by the New Hampshire Public Utilities Commission ("Commission" or "PUC") in Docket No. DE 19-057 (the "Settlement Agreement") including Appendix 4 of the Settlement Agreement. It provides information on Public Service Company of New Hampshire d/b/a Eversource Energy's ("Eversource" or the "Company") distribution system reliability and activities undertaken by the Company in calendar year 2022 focused on reliability.

Section 1 provides graphs of various reliability indices as specified in Appendix 4 of the Settlement Agreement. All graphs are based on IEEE reporting criteria, which was adopted by the NH Public Utilities Commission in 2014.

Section 2 provides a summary of specific operations and maintenance ("O&M") activities undertaken in 2022 which are generally targeted at maintaining or improving reliability. These activities include patrols of overhead distribution lines, inspections of underground developments and padmounted equipment, inspections of wood distribution poles for decay, and repairs of non-capital items on distribution lines related to the National Electrical Safety Code.

Section 3 provides information on capital projects targeting reliability, with information on the replacement of wooden distribution poles found to be defective through inspection, replacement of direct buried underground cable with new cable in conduit, and other capital reliability projects with spending greater than $100,000 in the calendar year. This last category is further broken down into new projects initiated in 2022, and projects with spending in 2022 over the threshold but which were established in prior years. Projects established in 2022 also have project descriptions included. Projects included in Section 3 include any locations where reliability was listed as an objective of the project, even if the project had other justifications such as replacing obsolete assets or safety concerns. Spending in 2022 on defective pole replacements totaled $1.38M. Spending on two projects replacing direct buried cable totaled $550K. Spending on new reliability projects totaled $22.836M, and on continued projects from prior years amounted to $26.142M.

Section 4 contains the Company's annual report on the 50 worst performing circuits for the previous year.

The Company's reliability has improved over time, with reductions in the overall frequency of outages (SAIFI), the duration of outages (SAIDI), and the number of customers impacted when outages do occur (CIII). Improvements in SAIFI and CIII have led to a general increase in CAIDI. Summary charts are provided in Section 1.1.

Preventing outages from occurring and reducing the number of customers impacted by those outages are methods to improve SAIFI and CIII. Company work in areas such as tree trimming, the installation of covered wire, pole top distribution automation, and TripSavers, as well as other activities have resulted in the improvements shown. The increasing penetration of pole top distribution automation has the unfortunate impact of resulting in a general increase in CAIDI, as more customers are restored in under five minutes and the remaining customers are subject to the full duration of the outages that require lineworkers to effect repairs. Company initiatives to reduce CAIDI include expanding the regions of the state with troubleshooters to provide 24 hour coverage, utilizing the System Operations Center to manage the distribution system at voltages below 34.5 kV, adding SCADA control to lower voltage substations, and continued penetration of pole top Distribution Automation which can help identify a fault location while crews are en route to the outage.

Section 1

Distribution System Reliability

The following is a brief description of the reliability graphs contained in this section. All graphs represent data for the time frame 2018 through 2022 and reflect IEEE criteria, adopted by the NHPUC in the second quarter of 2014.

Section 1.1 shows Eversource NH SAIFI, CAIDI, SAIDI, and CIII. All graphs are based on IEEE criteria. The Company SAIFI and SAIDI have shown much improvement since 2018; 2022 was the best year for SAIDI since 1996. SAIDI performance of 79 in 2022 is comparable to 1991 and 1992, which have been the best years since at least 1989. 2019 was the first year since 1993 that SAIDI has been under 100 and it has stayed below 100 through 2022.

Eversource tracks metrics on minor storm days that are not defined by the PUC major storms (IEEE Major Exclusion Days ("MEDs")). The impact of minor storms is included in all presented data. Eversource experienced a total of 38 minor storm days in 2022 compared to 47 in 2021, 37 in 2020, 23 in 2019, and 28 in 2018. The impacts of these storms are included in the reported statistics. These storms contributed 40 minutes to Eversource's SAIDI performance in 2022, compared to 51 minutes in 2021, 47 minutes in 2020, 27 minutes in 2019, and 47 minutes in 2018.[1]

Section 1.2 depicts CAIFI and CTAIDI over the 2018 through 2022 timeframe. These new indices have only been reported on since 2020. CAIFI is designed to show trends in customers interrupted and shows the number of customers affected out of the whole customer base. It is calculated by dividing the total number of customer interruptions by the number of distinct customers interrupted. CTAIDI is the average total duration of interruption for customers who had at least one interruption during the period of analysis and is calculated by dividing the total number of customer minutes of interruptions in the period by the number of distinct customers interrupted. Therefore, both CAIFI and CTAIDI indices refer only to customers who have experienced a service interruption in the period. For 2018 through 2020, CAIFI was in the range of 2.2 to 2.5. Similarly, 2018-2020 CTAIDI has been in the range of 4.3 to 4.6. Both experienced upticks in 2021 and 2022.

Section 1.3 depicts Eversource tree related statistics. The largest cause group for outages is trees and limbs, primarily from outside of the clearance area, therefore all four indices closely follow the total distribution system indices shown in Section 1.1. More than half of all tree related outages included in the reporting metrics occur during minor storm events and, therefore, tend to be longer duration outages. SAIDI, SAIFI and CIII showed improvement in 2022 compared to 2021, with CAIDI showing an uptick due to tree related outages during minor storms.

Section 1.4 shows Eversource equipment related statistics on the distribution system. These statistics exclude substation equipment, which are presented separately in the Section 1.5. Equipment failures were between the second and fourth leading cause contributors for SAIDI and SAIFI over the presented time frame. SAIFI, SAIDI and CIII all showed a downward trend over the reporting period.

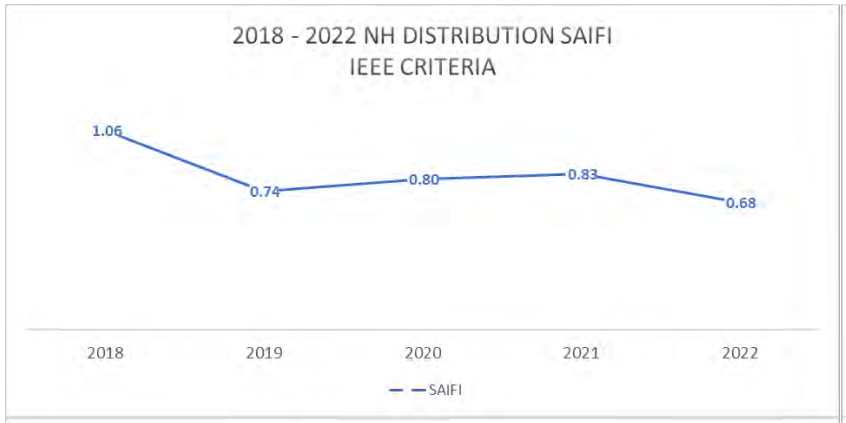
Section 1.5 shows results for distribution substation equipment failures. Power outages caused by equipment failures inside substations typically affect many customers and can be long in duration. That said, the reliability impact from substation outages has been minimal over the presented time frame. There was no equipment failure event in 2022, compared to one in 2021, one in 2020, three in 2019 and one in 2018.

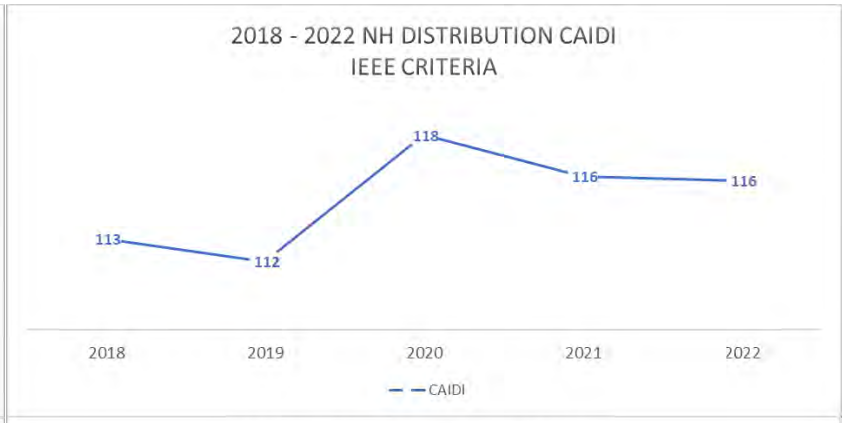
Section 1.6 shows Total SAIDI and Equipment Failure SAIDI that occurred during IEEE MEDs. The reliability impact of these major storms is not included in Eversource statistics presented elsewhere.

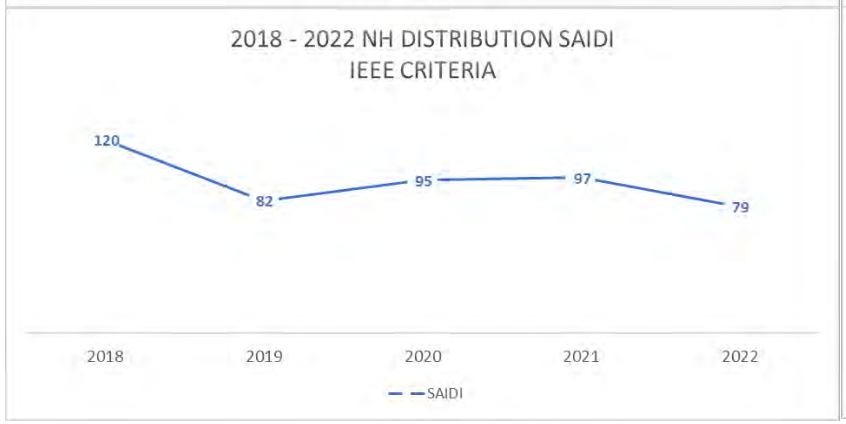
[1] Please note that the minor storm data presented in this 2022 Reliability Report differs from the minor storm data presented in the 2021 Reliability Report filed in Docket DE 22-010. The Company discovered an inadvertent error with the data presented in the 2021 Reliability Report while compiling this 2022 Reliability Report. The data presented here is correct.

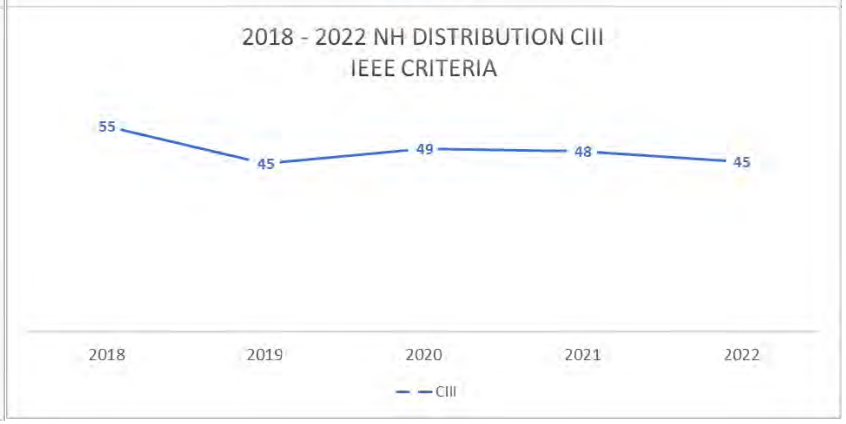
Section 1.7 shows SAIDI and SAIFI broken down by cause for each year 2018 through 2022. Tree related outages are the top driver of both statistics for the entire period, averaging 57 SAIDI minutes per year over the reporting period. Second, third and fourth places include Equipment Related, Action By Others and Other related outages. Outages due to equipment related causes averaged 10 SAIDI minutes per year. Action by Others, which includes causes such as motor vehicle accidents, customers and contractors digging into underground cables or felling trees on lines or vandalism, etc., averaged 10 SAIDI minutes per year. The “Other” category includes Public Safety Intentional Outages, Load Shedding, Planned Interruptions and Miscellaneous and averaged 12 SAIDI minutes per year over the reporting period.

Section 1.1 SAIFI (frequency), SAIDI (minutes), CAIDI (minutes), CIII (# of customers) – Distribution System Only – IEEE Criteria



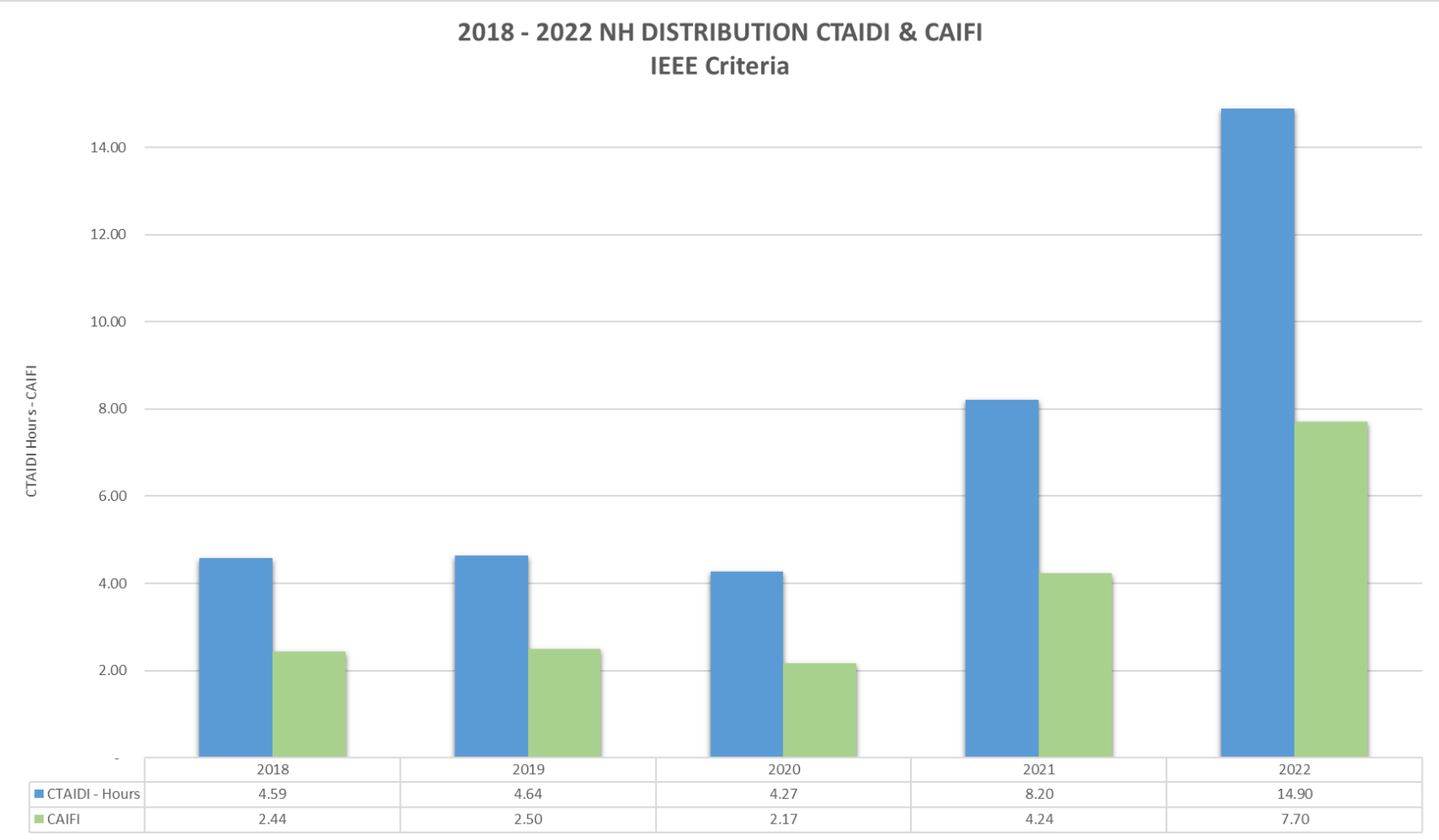






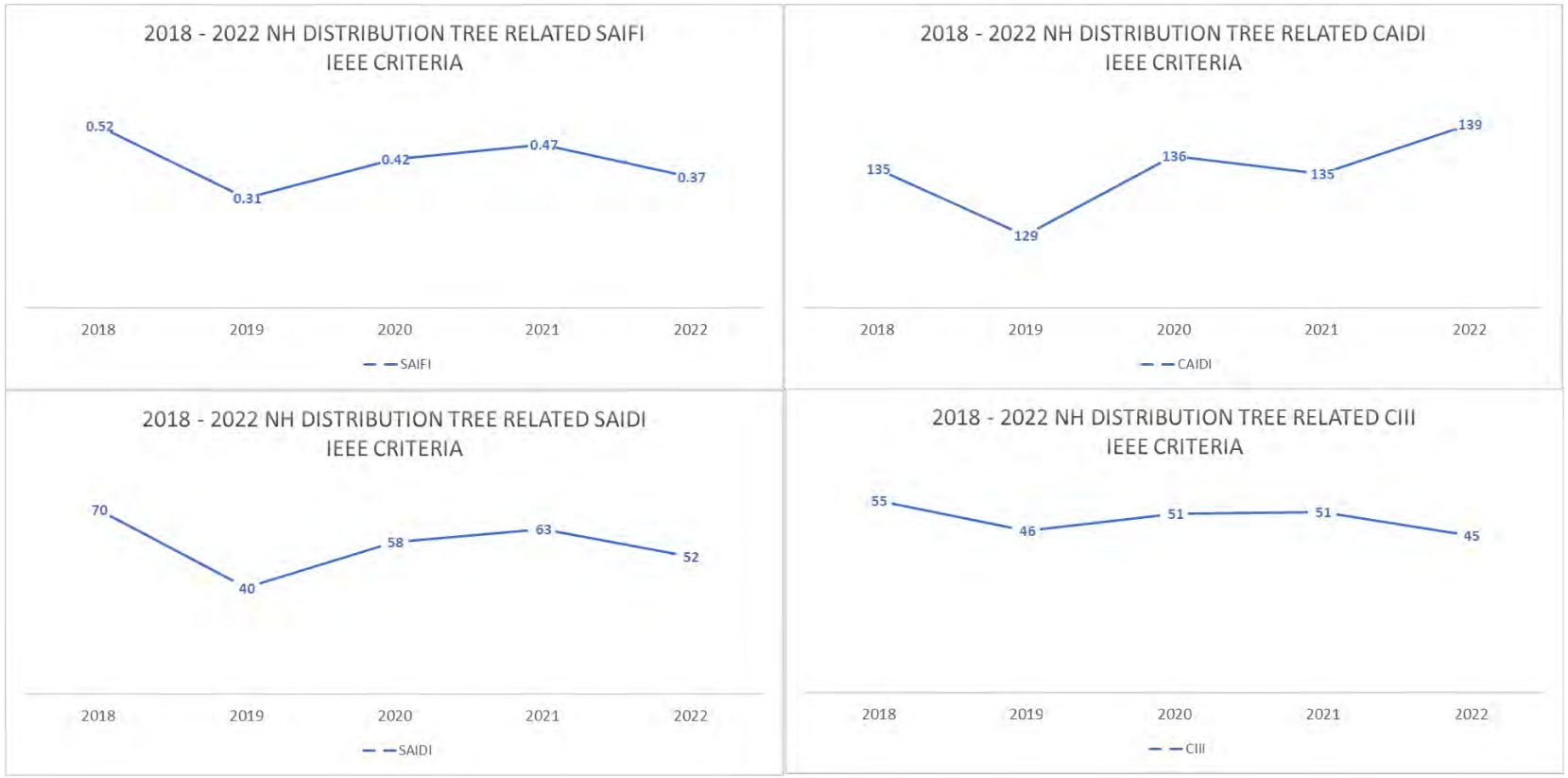
EVERSOURCE
2022 Reliability Report

Section 1.2 CAIFI (frequency), CTAIDI (hours) – Distribution System Only – IEEE Criteria

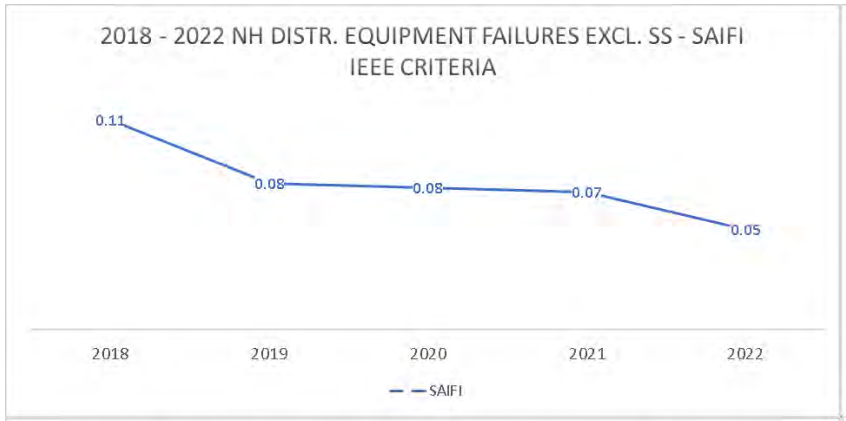


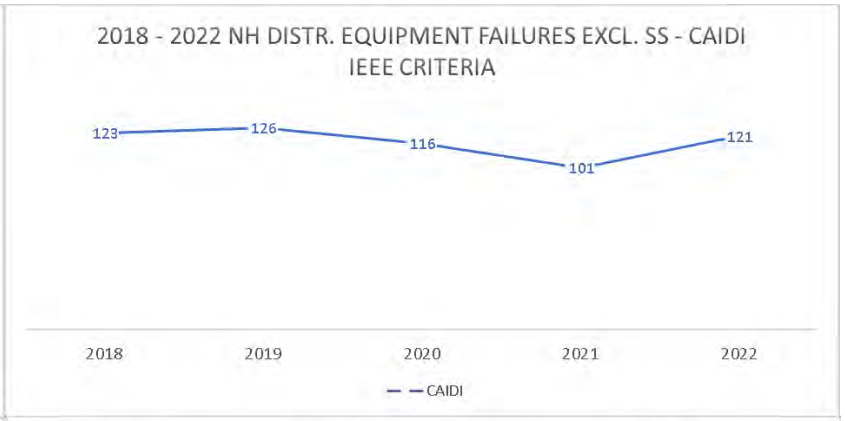
	2018	2019	2020	2021	2022
CTAIDI - Hours	4.59	4.64	4.27	8.20	14.90
CAIFI	2.44	2.50	2.17	4.24	7.70

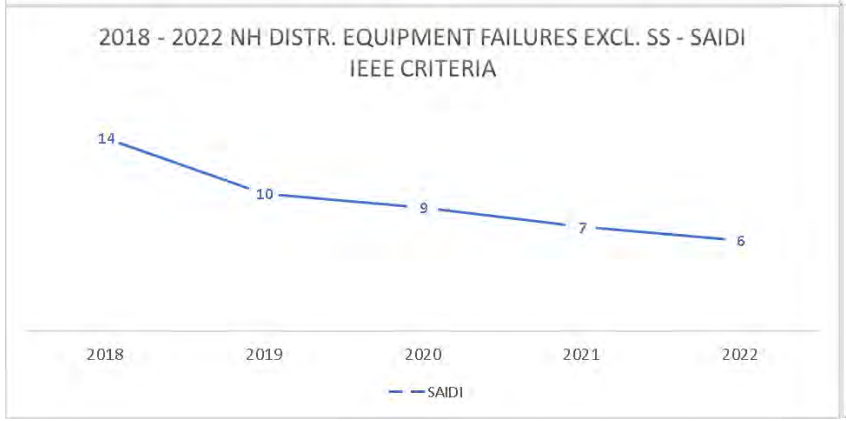
Section 1.3 SAIFI, SAIDI, CAIDI, CIII – Distribution System – Tree Related – IEEE Criteria

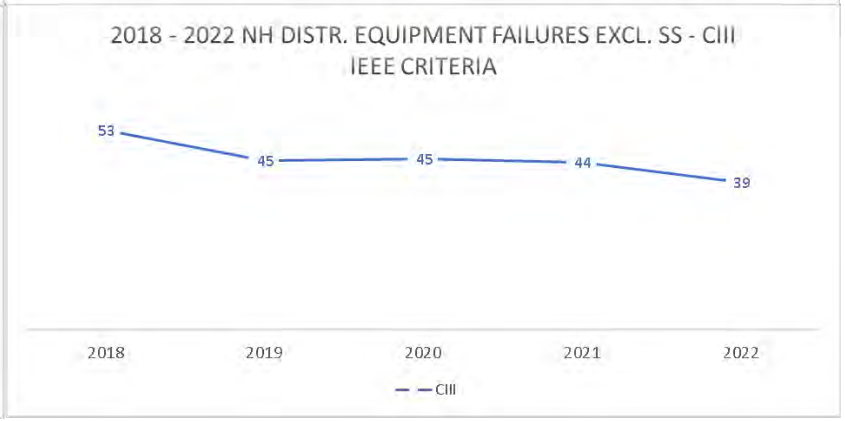


Section 1.4 SAIFI, SAIDI, CAIDI, CIII – Distribution (excluding Substation) Equipment Failures – IEEE Criteria

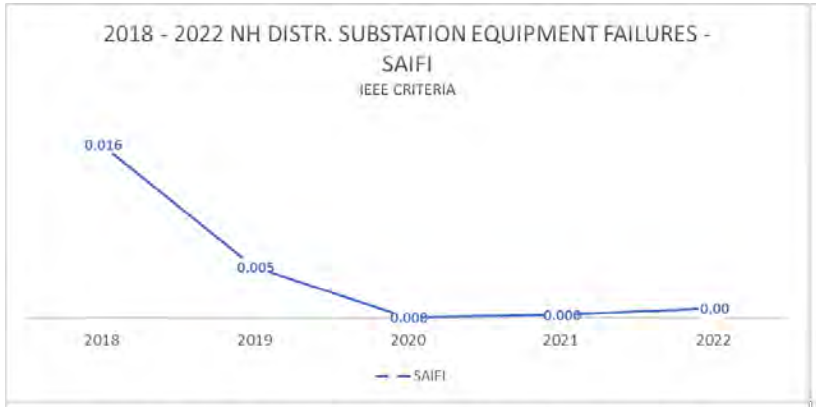


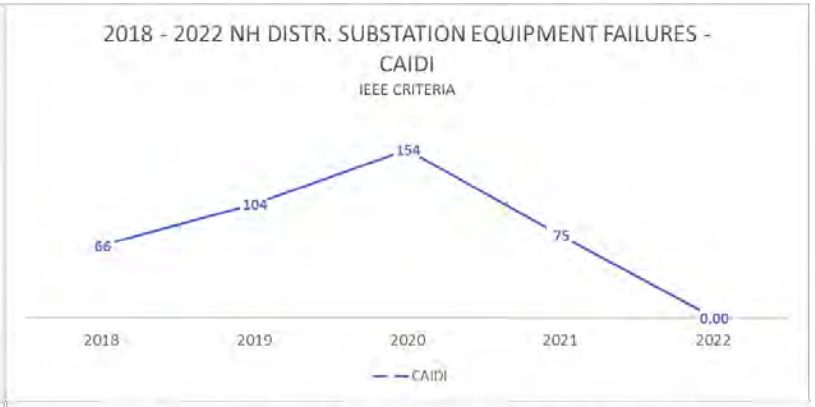


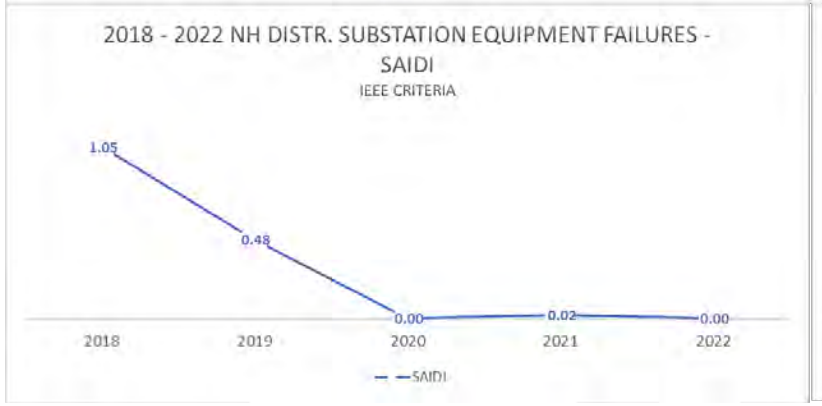




Section 1.5 SAIFI, SAIDI, CAIDI, CIII – Distribution Substation Equipment Failures - IEEE Criteria

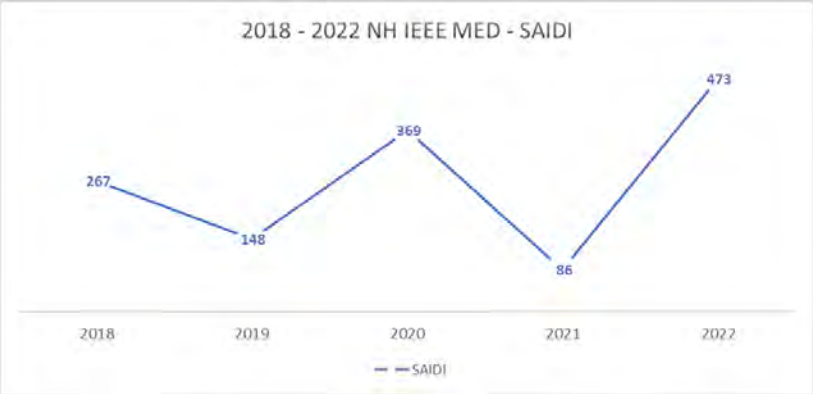

2018 - 2022 NH DISTR. SUBSTATION EQUIPMENT FAILURES - SAIFI
IEEE CRITERIA
0.016
0.005
0.000
0.000
0.00
2018
2019
2020
2021
2022
SAIFI

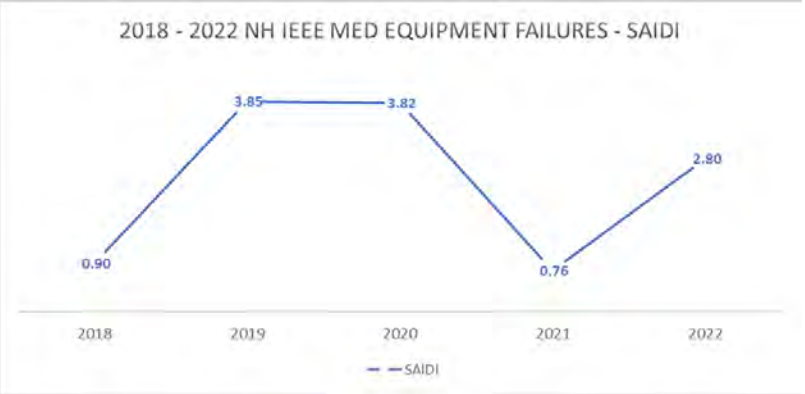

2018 - 2022 NH DISTR. SUBSTATION EQUIPMENT FAILURES - CAIDI
IEEE CRITERIA
66
104
154
75
0.00
2018
2019
2020
2021
2022
CAIDI

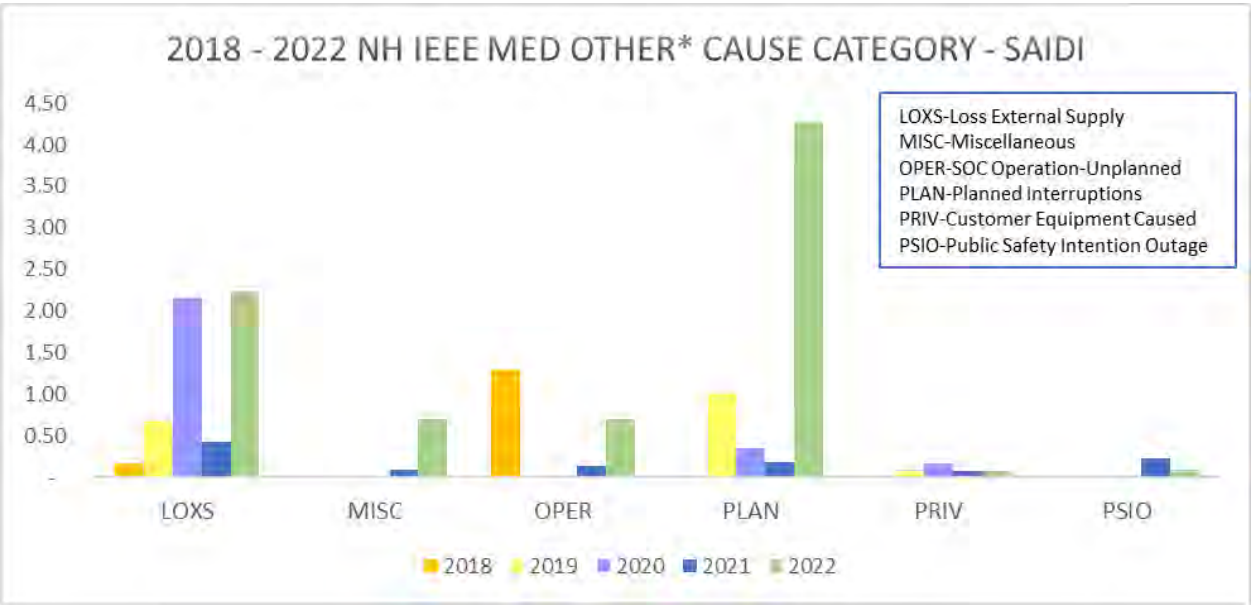

2018 - 2022 NH DISTR. SUBSTATION EQUIPMENT FAILURES - SAIDI
IEEE CRITERIA
1.05
0.48
0.00
0.02
0.00
2018
2019
2020
2021
2022
SAIDI


2018 - 2022 NH DISTR. SUBSTATION EQUIPMENT FAILURES - CIII
IEEE CRITERIA
8,396
823
3
149
0.00
2018
2019
2020
2021
2022
CIII

Section 1.6 SAIDI (IEEE MED) – Storm MED; Equipment Failure MED- Total System







Section 1.7 SAIDI and SAIFI by Cause – Total System - IEEE Criteria

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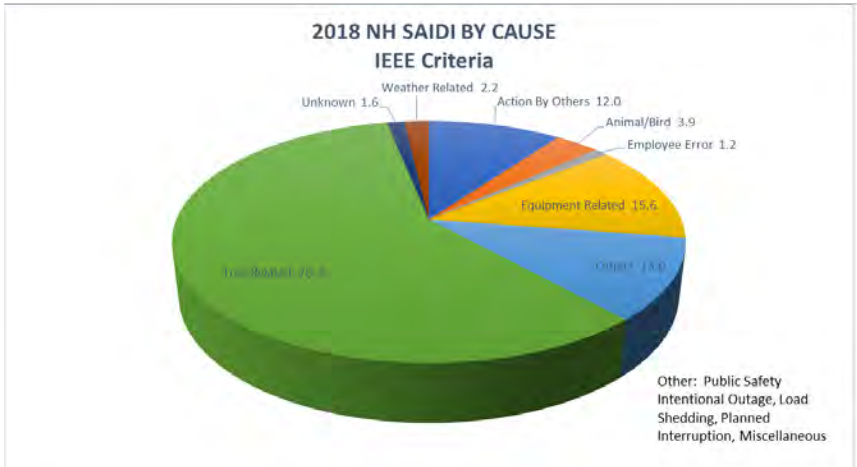
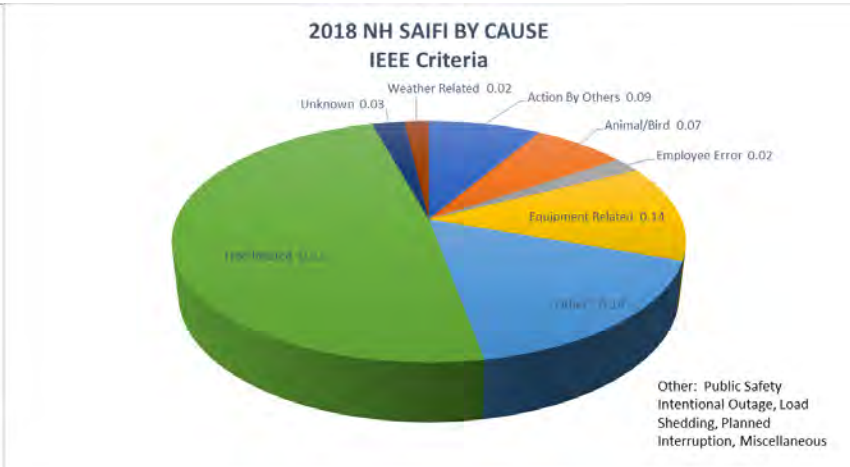


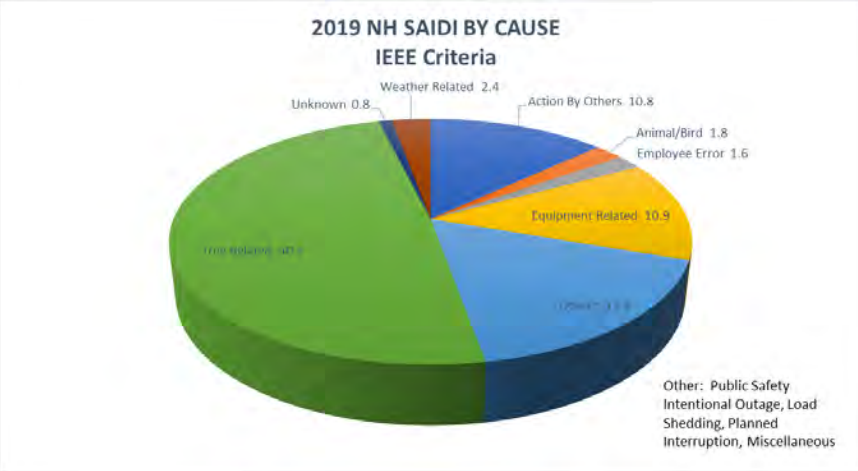


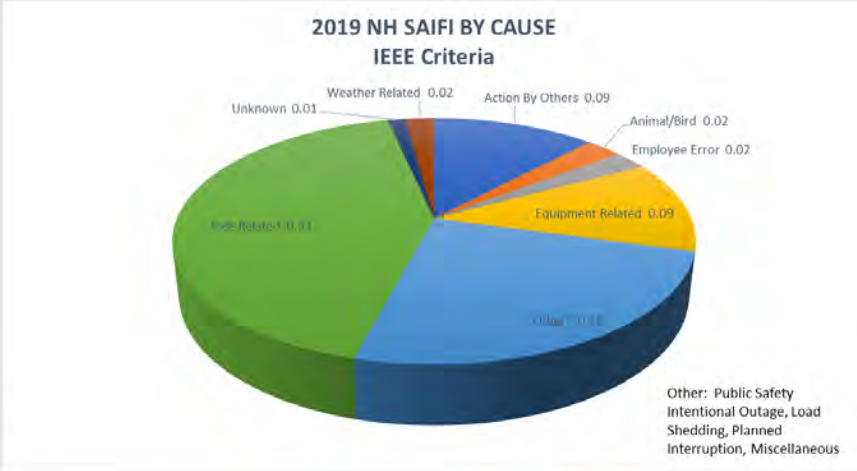
Cause	SAIDI
Tree Related	70.3
Equipment Related	15.6
Other	13.0
Action By Others	12.0
Animal/Bird	3.9
Weather Related	2.2
Unknown	1.6
Employee Error	1.2

Cause	SAIFI
Tree Related	0.52
Other	0.18
Equipment Related	0.14
Action By Others	0.09
Animal/Bird	0.07
Unknown	0.03
Employee Error	0.02
Weather Related	0.02

Section 1.7 cont'd SAIDI and SAIFI by Cause – Total System - IEEE Criteria

2019:



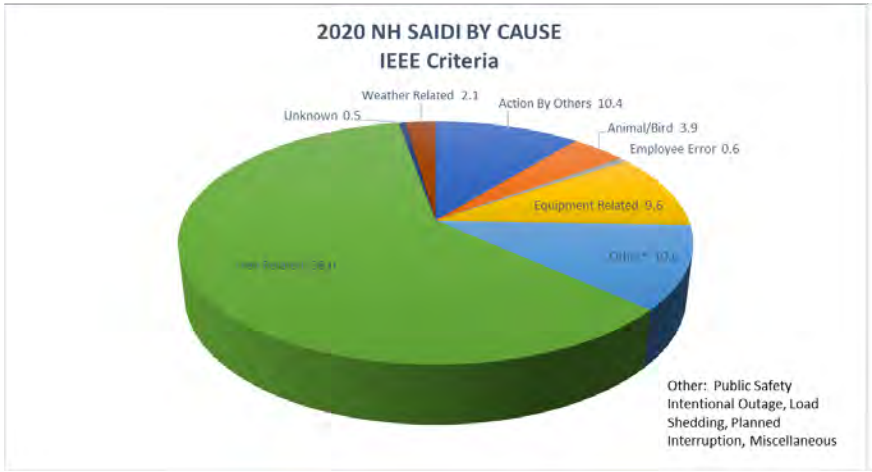


Cause	SAIDI
Tree Related	40.5
Other	13.9
Equipment Related	10.9
Action By Others	10.8
Weather Related	2.4
Animal/Bird	1.8
Employee Error	1.6
Unknown	0.8

Cause	SAIFI
Tree Related	0.31
Other	0.18
Action By Others	0.09
Equipment Related	0.09
Animal/Bird	0.02
Employee Error	0.02
Weather Related	0.02
Unknown	0.01

Section 1.7 cont'd SAIDI and SAIFI by Cause – Total System - IEEE Criteria

2020:

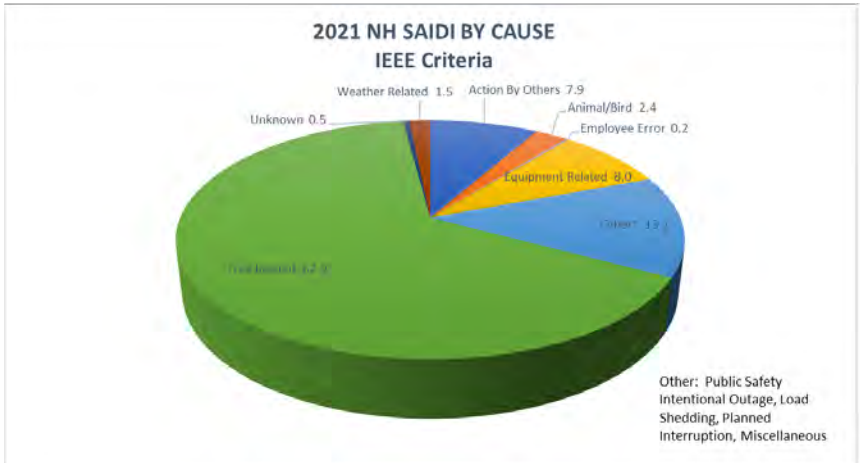


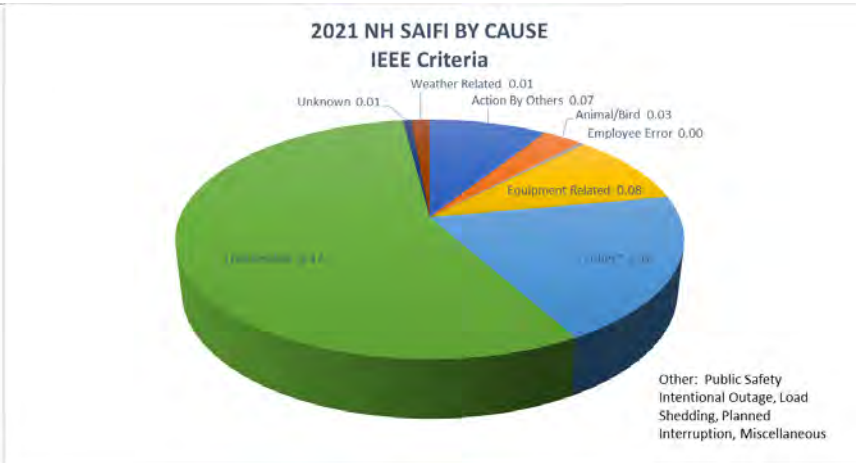
Cause	SAIDI
Tree Related	58.0
Other	10.6
Action By Others	10.4
Equipment Related	9.6
Animal/Bird	3.9
Weather Related	2.1
Employee Error	0.6
Unknown	0.5

Cause	SAIFI
Tree Related	0.42
Other	0.13
Action By Others	0.08
Equipment Related	0.08
Animal/Bird	0.05
Weather Related	0.02
Employee Error	0.01
Unknown	0.01

Section 1.7 cont'd SAIDI and SAIFI by Cause – Total System - IEEE Criteria

2021:



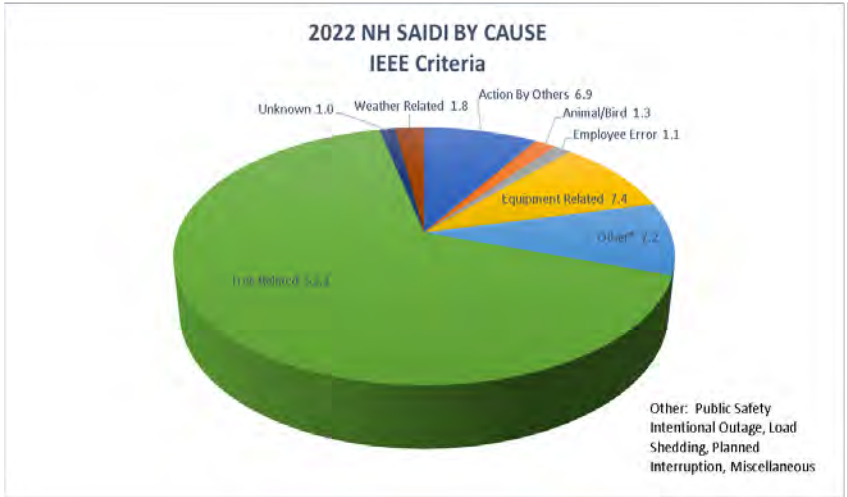


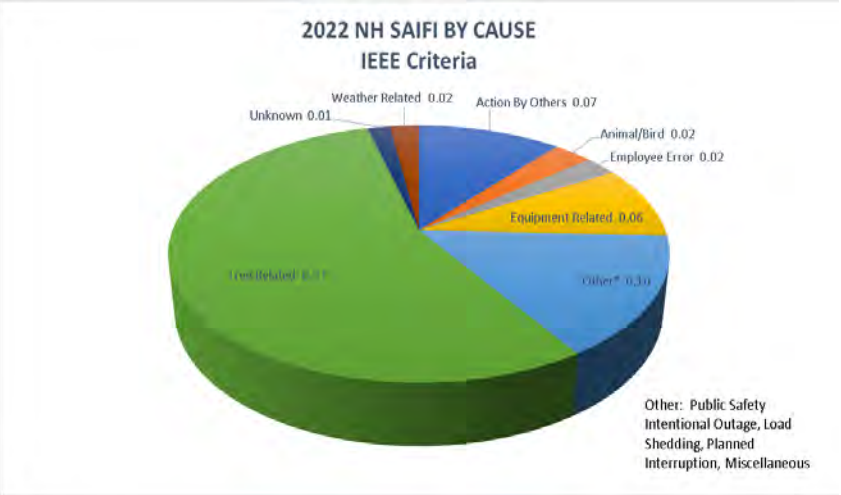
Cause	SAIDI
Tree Related	62.9
Other	13.2
Equipment Related	8.0
Action By Others	7.9
Animal/Bird	2.4
Weather Related	1.5
Unknown	0.5
Employee Error	0.2

Cause	SAIFI
Tree Related	0.47
Other	0.16
Equipment Related	0.08
Action By Others	0.07
Animal/Bird	0.03
Weather Related	0.01
Unknown	0.01
Employee Error	0.00

Section 1.7 cont'd SAIDI and SAIFI by Cause – Total System - IEEE Criteria

2022:





Cause	SAIDI
Tree Related	52.0
Equipment Related	7.4
Other	7.2
Action By Others	6.9
Weather Related	1.8
Animal/Bird	1.3
Employee Error	1.1
Unknown	1.0

Cause	SAIFI
Tree Related	0.37
Other	0.10
Action By Others	0.07
Equipment Related	0.06
Animal/Bird	0.02
Employee Error	0.02
Weather Related	0.02
Unknown	0.01

Section 2

O&M Activity Summary
January 1, 2022 – December 31, 2022

Section 2.1 Pole Inspections

Program Description: Inspect for decayed or damaged poles to ensure reliable and safe use of this asset.

Total Unit Population: Eversource is responsible for ground line inspection of approximately 250,000 poles. Eversource performs ground line inspection of poles in Eversource set areas only. A visual overhead inspection is performed on all poles to which the Company is attached.

Maintenance Cycle: Wood poles are inspected on a 10-year cycle in accordance with Eversource Maintenance Plan Chapter 5.61 and Intracompany Operating Procedures in place with joint owners in the State of NH.

Reliability Benefit: Replacement of decayed poles results in a more reliable and resilient distribution system.

Results: Pole inspection plans are developed based on the total number of poles in the towns to be inspected. Copper, Chrome, Arsenic ("CCA") treated poles less than 20 years old, and those treated with other preservatives and less than 10 years old, are not checked for ground line decay (sound and bore and/or ground line excavation). In 2022, 18,151 poles were ground line inspected plus an additional 28,171 poles in joint owner maintenance area were visually inspected for overhead issues.

$ Plan	$ Actual	$ Variance
$689,000	$633,436	($55,564)

Expenses were lower than anticipated due to the number of newer poles which did not require inspection, based on age, in the towns inspected in 2022.

Section 2.2 National Electrical Safety Code (NESC) Repairs

Program Description: Repair non-capital items documented as part of circuit inspections or other NESC compliance surveys such as during surveys for third party attachments.

Total Unit Population: Eversource has approximately 12,200 miles of overhead distribution line and approximately 2,000 miles of underground distribution line.

Results: In 2022, 12 NESC repair maintenance orders were completed and 0 corrective maintenance orders are outstanding. Extensive repairs were completed as part of make-ready work for CATV expansion into the Lakes Region area as well as other areas of concentrated third-party activity.

$ Plan	$ Actual	$ Variance
n/a*	n/a*	n/a*

*Budgets are not developed or tracked at this level or for this activity. Work is completed under a variety of Field Work Orders ("FWOs")

Section 2.3 Underground Circuit Inspections

Program Description: Inspect Direct Buried facilities including cable in conduit installations. Periodic inspections of Direct Buried and associated equipment at the specified interval allows preventative and corrective actions to be performed prior to situations becoming hazardous to the public or resulting in equipment failure.

Total Unit Population: Eversource is responsible for approximately 28,800 assets which are located in underground developments or are underground facilities providing service from the company's overhead system totaling approximately 2,000 miles of underground line.

Maintenance Cycle: Direct buried (including cable in conduit) facilities are inspected on a 10-year cycle, in accordance with Eversource Maintenance Plan chapter 5.11. As needed, replace fault indicators on a scheduled basis at the time of inspection.

Reliability Benefit: Proactively inspect underground developments, padmounted transformers, and associated equipment to identify potential issues and to ensure they function when needed.

Results: In 2022, 2,701 assets were inspected.

$ Plan	$ Actual	$ Variance
n/a*	n/a*	n/a*

*Budgets are not developed or tracked at this level or for this activity. Inspection work is completed under a variety of Field Work Orders (FWOs).

Section 2.4 Overhead Circuit Patrols

Program Description: Patrol overhead distribution lines. Patrols may be done for a variety of reasons including infrared patrols, post-storm patrols, or other reasons. Each reason for patrolling has different criteria regarding how far into the circuit the patrol is performed. For example, infrared patrols cover only the backbone while post-storm patrols may include all circuitry out to a certain size protective device.

Total Unit Population: Eversource has approximately 12,200 miles of overhead distribution line.

Maintenance Cycle: Overhead roadside distribution line backbones are inspected with infrared imaging equipment at least once annually in accordance with Eversource Maintenance Plan chapter 5.22. Aerial patrols of lines in rights-of-way (ROW) are completed at least once per year in accordance with the Eversource Maintenance Plan chapter 5.45

Reliability Benefit: Infrared patrols are intended to identify overheated equipment which may cause an outage or damage other equipment. Post-storm patrols are intended to find leftover damage not repaired during the storm or imminent dangers, either of which may cause an outage in the future. Aerial ROW patrols are intended to identify items needing repair which may cause an outage in the future.

Results: Patrols completed in 2022:

ROW aerial patrols: All ROW lines or line segments were patrolled in February, and August of 2022, with additional patrols of certain lines over the course of the year associated with project work, in response to momentary events, or following storm events. A list of lines patrolled is included in Section 2.4(a) below.

Patrols of poor performing roadside circuits were conducted in 2022 to identify unfused transformers and laterals. A project was approved to add fusing to these locations to improve the reliability for these customers by preventing isolated events from affecting larger numbers of customers.

In addition, focused post storm circuit sweeps were conducted following multiple weather events throughout the year. Circuits with moderate or higher impacts were patrolled. Three phase backbone and large single and three phase laterals were patrolled. These patrols were conducted to identify anything which might cause an imminent outage, a danger to public safety, Eversource debris left beside the road, limbs on or over the primary, and broken or uprooted trees leaning on or over the primary conductors. All items were addressed immediately by entry and tracking in the Outage Management System.

The vegetation management ("VM") organization performs post event assessments following all tree related events that result in a permanent outage affecting 100 or more customers as well as when "three or more" outages occur in a circuit segment within 90 days to ensure no additional VM follow up is required. Additionally, VM performs a "reliability" assessment of the system during the 100% quality control inspection of the trimming that is completed annually. Arborists record locations where they observe electrical hardware issues and report them into the System Operations Center.

Infrared ("IR") patrols were reinstated in 2022 (they were paused in 2020 and 2021 due to COVID-19 precautions). The surveys are performed on substation equipment and circuit three phase backbones to identify situations which could lead to equipment failure due to heating from poor connections or failing equipment.

The roadside circuits patrolled are listed below in Section 2.4(b).

$ Plan	$ Actual	$ Variance
n/a*	n/a*	n/a*

*Budgets are not developed or tracked at this level or for this activity.

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Section 2.4(a) ROW Patrols

Area Work Center	Circuit
Bedford	312
Bedford	314
Bedford	322
Bedford	323
Bedford	324
Bedford	328
Bedford	354
Bedford	358
Bedford	359
Bedford	378
Bedford	3108
Bedford	3138
Bedford	3143
Bedford	3151
Bedford	3155
Bedford	3164
Bedford	3194
Bedford	3212
Bedford	3392
Bedford	3467
Bedford	314X12
Bedford	3194X1
Bedford	3194X2
Bedford	3271
Bedford/Hooksett	325
Bedford/Hooksett	334
Bedford/Hooksett	357
Bedford/Hooksett	3142
Bedford/Hooksett	334R
Bedford/Hooksett	335X56
Bedford/Hooksett	387
Bedford/Nashua	329
Bedford/Nashua	3217
Berlin	352
Berlin	3521
Berlin	350X
Berlin	350X2
Berlin	350X2
Berlin	3525X
Chocorua	346
Chocorua	347
Chocorua	390
Chocorua	395
Chocorua	3218
Chocorua	3218
Chocorua	336X
Chocorua	346X2
Derry	3184X
Derry	3184X10
Derry	32W1
Derry	32W4
Derry	32W5
Derry	365X
Epping	377
Epping	380
Epping	3103
Epping	3162
Epping	3229
Epping	3152X
EppIng	49W1
Hooksett	318
Hooksett	321
Hooksett	335
Hooksett	356
Hooksett	370
Hooksett	393
Hooksett	3182
Hooksett	3613
Hooksett	3614
Hooksett	334G
Hooksett	372 A&B
Keene	382
Keene	3178
Keene	3235
Keene	313X4
Keene	3140X1
Keene	382X2
Keene	4W1
Keene	76W1
Keene	76W3
Keene	76W4
Keene	76W7
Keene	W110
Keene	W15
Keene	W15
Keene	W15
Keene	W185
Keene	W2
Keene	W9
Keene	313
Keene/Newport	311
Lancaster	348
Lancaster	355X10
Lancaster	355
Lancaster	384
Lancaster	348X3
Lancaster	376L
Lancaster	376W
Lancaster	384X1
Lancaster/Berlin	351
Lancaster/Tilton	348X2
Nashua	353
Nashua	383
Nashua	389
Nashua	3110
Nashua	3136
Nashua	3144
Nashua	3146
Nashua	3147
Nashua	3154
Nashua	3159
Nashua	3175
Nashua	3177
Nashua	3445
Nashua	3445
Nashua	3750
Nashua	3020X
Nashua	3110X

Nashua	3168X
Nashua	3891X
Newport	315
Newport	316
Newport	3410
Newport	311 Tap
Newport	317 Tap
Newport	4181
Newport	4435
Newport	55W2
Newport	61W2
Portsmouth	3191
Portsmouth	339
Portsmouth	367
Portsmouth	3101
Portsmouth	3102
Portsmouth	3105
Portsmouth	3106
Portsmouth	3111
Portsmouth	3112
Portsmouth	3165

Portsmouth	3171
Portsmouth	3172
Portsmouth	3214
Portsmouth	3850
Portsmouth	3153X
Rochester	32
Rochester	340
Rochester	362
Rochester	371
Rochester	386
Rochester	392
Rochester	399
Rochester	3157
Rochester	3157
Rochester	3174
Rochester	3228
Rochester	3425
Rochester	3601
Rochester	3148X
Rochester	386A
Rochester	399X1

Rochester	W122
Tilton	310
Tilton	319
Tilton	337
Tilton	338
Tilton	343
Tilton	345
Tilton	368
Tilton	398
Tilton	3025
Tilton	3122
Tilton	3149
Tilton	3196
Tilton	3548
Tilton	3625
Tilton	3798
Tilton	3222X
Tilton	342A
Tilton	342B
Tilton/Epping	3137X
Tilton/Newport	317

Section 2.4(b) Roadside Circuit Patrols

Bedford
3108
3138
12W2
12W3
18W1_12
23X2_12
23X4_12
23X5_22
23X6_22
3108_12
3108X1_12
311X1_12
311X3_12
311X5_12
311X6_12
311X8

312X_12
3151X10_12
3151X9_12
3164X3_12
3164X8_12
3173X1_12
317X1_12
317X2
317X3_12
317X7
3194X1_12
322X10_12
322X12_12
323X5_12
3271X1_12
3271X2_12
3271X3_12
3271X45_12

3271X5_12
327X10_12
327X8_12
328X1_12
328X9_12
334G_12
334X14_12
335X1_12
335X15_12
335X2_12
335X3_12
33H1_12
35H1_12
360X1_12
360X11_12
360X14_12
360X2_12
360X5_12

360X7_12
37W1_12
3W1_12
3W2
5W1
5W2
79W4_12
85W1_12
JACKMAN
Berlin
21H1_77
21H2
21H4
21H5
25W1_77
350X_77
350X1_77
350X2_77
351X4_77
3525X1_77
3525X2_77
3525X3_77
3525X4_77
3525X5_77
Chocorua
19W1
19W2
3116X1_45
3218_45
336X_45
336X1_45
346X1_45
347_45
395_45
Derry
31280
31840
26W1_23
3115X_23
3128X_23
3133X_23
3141X_23

3156X
3184X_23
32W1
32W3
32W4
32W5
365X_23
8W1_23
Epping
13H1
13H2
3103_65
3103X1_65
3115X11_65
3115X12_65
3115X7_65
3115X9_65
3137X1_65
3137X10_65
3137X3_65
3137X5_65
3137X6_65
3137X7_65
3137X8_65
3137X80_65
3152X_65
3152X1_65
3162X1_65
3229X1_65
3229X2_65
3229X3_65
3229X5_65
3229X6_65
377X1_65
377X11_65
377X15_65
377X16_65
377X19_65
377X2_65
377X20_65
377X29_65
377X3_65

377X5_65
377X6_65
377X7_65
380X1_65
380X2_65
380X3_65
49W1_65
63W1
Hooksett
13W1
14H4
14H7
14H8
14W1
14W2
14W7_11
14X126A_11
14X188_11
18W1_12
18W3
21W1
22W1
22W2
23W1
23W2
23W3
23W4
24H2
27W2
29H2_11
318X2_11
321X11_11
324X10_11
324X8_11
325X7_11
334X18_11
34W18_11
3614X3_11
3615X1_11
3615X2_11
3615X3_11
370X_11

393X11_11
393X20_11
393X8_11
44W2
7W1_11
Keene
3140
24X1_36
26H1_36
26H2_36
28W1_36
3120X1_31
3120X2_31
3120X3_36
3120X4_36
3139X_31
313X1_36
313X2_36
313X4_36
313X7_36
3140_36
3140X1_36
3140X2_36
3140X3_36
3155X4_36
3173_36
3178_31
3178X3_31
3178X4_31
3178X5_31
3179X
33W1
35W1
382X2_36
382X3_36
4W1
4W2
51W1_36
53H1_31
53H2_36
55H1_36
76W1

76W3
76W4
76W5_31
76W7_31
CHESTNUT
TB95L
W1
W110
W15
W175_31
W185
W2
W9_31
Lancaster
12W1_43
17W1_43
1W1
1W2
348X1_76
348X19_43
348X2_76
348X20_43
348X3
348X4_76
348X5_76
348X7_76
348X8_76
348X9_76
351X1_76
351X16_76
351X17_76
351X2_76
355X_76
355X1_76
355X10_76
355X14_76
355X15_76
355X16_76
355X2_76
355X3_76
355X4_76
355X5_76

355X6_76
355X7_76
36W1_76
376X1_76
376X2_76
376X3_76
376X4_76
376X5_76
376X6_76
384_76
41W1_43
43W1_43
45W1_43
59W1
59W2
5H1
5H2
Nashua
32170
03168X
15H2
15H3
15H4
15H5
15H6
15W1
16H1
16H2
16H3
17H1
17H2
17H3
18H1_21
18H2
18H3
23H3
23W7
24W1_21
27H1_22
27H2_22
27H3_22
2H1

2H2
3010X_21
3020X
3110X_21
3136X_21
3143X_22
3144_21
3144X1_21
3144X3_21
314X12_22
314X14_22
314X15_22
314X23_22
314X26_22
314X3_22
314X4_22
314X46_22
314X54_22
3154X1_21
3154X2_21
3155X_22
3155X2_22
3155X3_22
3155X7_22
3155X8_22
3155X9_22
3168X_21
3175X_21
3175X1_21
3175X3_21
3177X1_21
3177XA_21
3212X_22
3217X_22
3445X_21
3750_21
383X1_21
383X2_21
383X3_21
3H1_21
3H2_21
40W1

6W1_21
72W1_21
9H1
9H2
9H2_21
HUDSON
Newport
16W1
16W3
315X2_32
316_32
316X1_32
316X2_32
3410_32
3410X1_32
42X1
42X3_32
42X4
44H1
46W1
47W1_32
48W1_32
54W1
55W2
60W1
61W2
74W1
75W2
NEW_LONDON
TB92L
Portsmouth
15W4
16W4_63
2W4
2W5
3102_63
3105X1_63
3105X4_63
3111X1_63
3112X1_63
3112X3_63
3112X4_63

3153X
3172X1_63
3191X3_63
3191X9_63
339X8_63
367X2_63
3850X1_63
3850X7_63
48H1
48H2
48W2
58W1
64W1
64W2
64W2_63
67W1_63
67W2
6H1_63
6H2_63
71W1
71W2
71W3
71W4
Rochester
115
122
3137
3148X_62
3148X1_62
3148X2_62
3148X3_62
3157X1_61
3157X2_61
3174X1_61
3174X4_61
32X3_62
32X4_62
32X6_61
340X1_61
340X5_61
34W2
34W3

34W4
34W4_61
362X1_61
362X2_61
371X1_61
371X14_62
371X30_62
371X8_62
371X9_62
38W1
38W2
392X
392X1_61
392X2_61
392X4_61
392X5_61
392X7_62
399X1_62
399X11_62
399X13_62
399X15_62
399X18_61
399X5_61
39W2_61
40H1
41H1
41H2
42H1_61
42H2
51H1
53W1

53W2
54H1_61
54H2_61
56H1_61
56H2_61
57W1
73H1
73W1_61
73W2
Tilton
10W1
11W1_41
11W2_41
1X4_42
20W1_42
20W2
27X1_41
29X1_41
2W1_41
2W2_41
30W2_64
310_41
310X3_41
310X5_41
3114W1_42
3114X_42
3137X2_64
319X1_64
31W1
31W2
3216X2_42

337X8_42
338X3_41
342A
343_41
345B
345X1_42
345X5_41
3548_42
3548X2_42
3548X6_42
3548X9_42
3798X4_42
37H1
37H2
37X4
398X2_41
398X3_41
39H1
39H2
39W1
39W2
47H7
47H8
68W6
70W1
70W2
90H1
90H2
90W2
9W1_41
CHICHESTER

Section 3

Capital Activity Summary
January 1, 2022 – December 31, 2022

CAPITAL - 2022

REJECT POLE REPLACEMENT:

Program Description:

Replace poles determined to be defective during the annual inspection cycle.

Eversource maintains approximately 250,000 poles on its system. These are inspected every 10 years or an average of 25,000 poles per year.

Pole inspection plans are developed based on the total number of poles in the towns to be inspected. Copper, Chrome, Arsenic ("CCA") treated poles less than 20 years old, and those treated with other preservatives and less than 10 years old, are not checked for ground line decay (sound and bore and/or ground line excavation).

Joint owned poles maintained by others are visually inspected for overhead issues.

Total Unit Population:

Depending upon inspection results, Eversource estimates 500 poles to replace each year which corresponds to a 2% failure rate.

Results:

In 2022, 18,151 poles were ground line inspected plus an additional 28,171 poles in joint owner maintenance area were visually inspected for overhead issues. 421 poles were found to be defective requiring replacement. (257 Eversource, 164 CCI). Eversource actively replaces all reject poles in Eversource territory and ensures "C" rejects within CCI maintenance area are addressed. Eversource completed approximately 86% of this population by 2022 year-end, with the remainder to be completed in early 2023. The delay was a result of limited pole availability due to ongoing global supply chain issues.

$ Plan	$ Actual	$ Variance
$2,225,000	$1,384,693	($840,307)

DIRECT BURIED CABLE REPLACEMENT:

Program Description:

Replace direct buried cable with cable in conduit.

Approximately 2,000,000 feet of direct buried cable was installed at Eversource prior to 1985 with earliest vintages from 1970. Cable insulation is subject to age failure and bare concentric neutral conductors are subject to corrosion. Testing has indicated that in many locations the concentric neutral is no longer sufficient to provide a path to ground for the electric system. This project is to replace unjacketed direct buried cable in specific developments which have experienced a high failure rate. Live front transformers and/or pre-1987 elbows are replaced along with the cable.

Results:

Two cable replacement projects were completed in 2022. (Isolated replacement of failed cable sections are completed under the Obsolescence ("DQ") Annual project).

Tidewater Farm URD Loop - The underground development off Tidewater Rd in Greenland has a history of outages due to failed direct buried cable. The direct buried cable runs through the woods and the pad mount transformer 17/23S2T1 is in an inaccessible vegetated area. This project installed a new pad mounted

transformer and relocated the inaccessible pad to an accessible location by the roadside. The project replaced direct buried cable with new cable in conduit.

Riverview UG Replacement - Riverview Apartment Complex was built in the early 1970s and the primary and secondary electric service to the five buildings was all direct buried. A secondary cable failed in February 2022 and temporary repairs were made to restore power. The property is undergoing system improvements to the electric services and the various building systems. This presented an opportunity to upgrade the 50 year-old infrastructure while greatly reducing the likelihood of more failures. The feed to the complex was radial with no existing back feed. The new design incorporated a second primary riser and a loop configuration.

$ Plan	$ Actual	$ Variance
$670,000	$550,164	$(119,836)

EVERSOURCE
2022 Reliability Report

OTHER CAPITAL RELIABILITY PROJECTS:

Category Description: This category includes all projects with spending in 2022 in excess of $100,000 which were at least partially justified based on reliability.

There were 24 reliability improvement projects established in 2022 with spending greater than $100,000. These projects are listed below. Project descriptions are included in Section 3.1.

Project	Project Description	Authorized Amount	2022 Spend	Status (12/31/22)
A22C01	Manchester Network Cable Replacemen	1,792,000	1,617,922	Under Construction
A22C03	GOFFSTOWN SS ELIM PHASE 2 27W2 CONV	2,420,000	382,543	Under Construction
A22C61	323 Line Underbuild Re-attachment	1,738,000	544,790	Under Construction
A22C77	Mammoth Rd SS TPU Relay Repl	631,000	253,833	Under Construction
A22C85	317 Line ROW Section Rebuild	544,000	514,896	Under Construction
A22E41	RESISTANCE SS RETIREMENT	1,115,400	181,333	Under Construction
A22E47	3148X3 REMOVAL - NORTH DOVER	1,363,000	1,052,103	Under Construction
A22E56	32 Line Pole Replacement	5,670,500	3,207,332	Under Construction
A22E57	371 Line Pole Replacements	6,281,700	3,464,164	Under Construction
A22LS	DISTRIBUTION AUTOMATION LINE SENSOR	360,000	477,644	Completed
A22N60	355 Line Emergent Str Replacement	802,000	567,733	Completed
A22N71	355 Line Pole Replacement	481,000	188,366	Under Construction
A22RPR	Roadside Reject Pole Replacement	2,225,000	1,384,693	Under Construction
A22S10	3217X ROCKY POND RD BACKFEED	350,000	275,809	Under Construction
A22S50	3128X GRIFFIN ROAD CONVERSION	381,000	213,574	Completed
A22W02	3120X2 RT 119 CONVERSION	850,000	350,262	Under Construction
A22W08	3139X SPOFFORD RD RECONDUCTOR	384,000	212,604	Completed
A22W26	317/3410 Reconstruction Phase 2	3,255,000	2,039,405	Under Construction
A22W63	313X1 Riverview UG Replacement	417,000	374,362	Under Construction
A22W68	3140X Stoddard Rebuild	575,000	226,776	Completed
A22X17	2022 WOOD POLE TREATMENT	419,100	232,116	Under Construction
A22X35	2022 CIRCUIT PATROL REPAIRS	946,000	988,879	Completed
A22X67	NH Cutout Installation 2022*	1,869,000	3,169,580	Completed
A22X74	Tripsaver Initiative	946,000	915,233	Completed
Total 2022 Amount for projects initiated in 2022		**35,815,700**	**22,835,951**	
(Note the Authorized Amount includes the total for Multi-year projects)				

*Note: A Supplement Authorization was approved at NHPAC prior to exceeding the authorized amount.

In addition, there were 20 reliability projects established in prior years with spending in 2022 in excess of $100,000. Project descriptions for these projects are included in Section 3.2.

Project	Project Description	Sum of 2022 FY Actual
A16C08	Brook St S/S 13TR1 Replacement	621,483
A17S03	MILLYARD SS REPLACEMENT	6,884,270
A18C07	EDDY SS CONTROL HOUSE	2,474,126
A18N03	WHITE LAKE SS REBUILD	157,341
A18W06	MONADNOCK SS REPLACE TRANSFRMR TB40	297,344
A19C33	Animal Protection at Rimmon SS	555,482
A19S40	AMHERST S/S - PLC AUTOMATION REPLAC	2,219,446
A20S02	Millyard SS Distribution Line Work	3,728,199
A20W18	317/3410 RECON BRADFORD TO WARNER	266,766
A20W37	RIVER ROAD SS UPGRADES	543,107
A20X26	SPARE 345-34.5kV TRANSFORMER	723,107
A21C07	MALVERN VALLEY HANOVER CIRCUIT TIE	137,908
A21C91	393 LINE ROW SECTION REBUILD	4,677,513
A21DA	DISTRIBUTION AUTOMATION POLE TOP	1,242,339
A21E08	CIRCUIT TIE 3191X1B TO 377X2	158,369
A21E16	REPLACE ROCHESTER SS BUS TIE AUTOCL	442,535
A21E94	TIDEWATER FARM URD LOOP	173,152
A21N45	ASHLAND S/S-PLC REPLCMNT& P&C UPGRD	424,047
A21S17	34.5kV CAP BANK SWTCH REP BROAD ST	310,958
A21X93	2021 CIRCUIT PATROL REPAIRS PHASE 2	105,237
Total 2022 spend on projects initiated in prior years		**26,142,728**

Section 3.1

2022 Projects

A22C01 Manchester Network Cable Replacement (Phase 2) - Under Construction
Phase 2 of the Manchester Network Cable Replacement project will reconductor the 13B and 13D cables from just outside Brook Street Substation to Hampshire Plaza on Elm Street in Manchester, NH. The work in 2022 involves 5 of the 33 transformer vaults. Reconductoring the entire network will take place over four years.

A22C03 GOFFSTOWN SS ELIM PHASE 2 27W2 CONV - Under Construction
Phase 2 will convert the 27W2 12.47 kV circuit to 34.5 kV. Phase 1 converted the 45H1 circuit to 34.5 kV and was completed in February 2022. Implementing both phases of these projects eliminate a 64-year-old, islanded substation and non-standard 3.74 kV circuit, optimizing Distribution Automation and improving system reliability in Goffstown.

A22C61 323 Line Under-build Reattachment - Under Construction
Reattach a 2.63-mile long section of the 34.5kV 323 distribution line underbuilt below the V191 Transmission line. 33 of the 41 laminated wood structures on the V191 line will be replaced with lightweight weathering steel structures due to structural integrity failures.

A22C77 Mammoth Rd SS TPU Relay Replacement - Under Construction
Replace one (1) TPU2000R ABB relay in service at Mammoth Road Station with one (1) SEL-387E protection relay. The replacement of this obsolete relay is required as ABB has classified the relays as obsolete and replacement parts are no longer available. Failure could result in a transformer outage, a decrease in system reliability, and unnecessary relay replacement work under emergency conditions.

A22C85 317 Line ROW Section Rebuild - Under Construction
Reconstruction of the 317 line in the right of way between Rt.127 in Warner and the line crossing at Dustin Rd. in Webster. Ten (10) aged wooden poles and deteriorated crossarms will be replaced with new steel structures. In addition to the pole replacements, this project proposes the replacement of 1,900 linear feet of 83-year-old #2 copper conductor with 477 MCM spacer cable. This replacement project will harden the system and provide for future load transfer capabilities.

A22E41 RESISTANCE SS RETIREMENT - Under Construction
Provide partial funding for engineering support and environmental analysis for the Solution Design Committee Review of the Resistance Substation retirement. The Resistance SS has a single 1971 vintage, 44.8MVA transformer, and there are concerns with the aging infrastructure, deteriorating foundations, structures, and broken bushings in the substation. Due to the proximity and recent increased capacity at the Portsmouth SS, it is recommended that Resistance SS be retired.

A22E47 3148X3 REMOVAL - NORTH DOVER - Under Construction
Remove seventeen (17) Poles in the 34.5 kV 3148X3 Right of Way (ROW) alternate supply to North Dover Substation in Dover, NH, and install a tap for the 3148X3 and 371 circuits allowing for the removal

of the switches located at pole 130 off Old Rollinsford Road. The results of the March 2022 survey, including below surface investigation, revealed that the 17 wooden structures are showing signs of advanced degradation due in part of the surrounding wet land area. Removing this portion of the ROW line and moving the tap meets the project objective of mitigating the risks associated with the pole failure.

A22E56 32 Line Pole Replacement - Under Construction
Replace 71 wooden poles on the 32 line identified as requiring replacement during a line inspection completed in March 2022. The wood poles will be replaced with self-weathering steel poles, retaining the existing conductor. The wooden poles have experienced advanced deterioration below groundline that is attributable to the surrounding wet land areas. The objective of the project is to prevent long term unexpected failure of wood structures in wetland areas with difficult access with the least cost solution.

A22E57 371 Line Pole Replacements - Under Construction
Replace 69 wooden poles on the 371 line identified as requiring replacement during a line inspection completed in March 2022. The wood poles will be replaced with self-weathering steel poles, retaining the existing conductor. The wooden poles have experienced advanced deterioration below groundline that is attributable to the surrounding wet land areas. The objective of the project is to prevent long term unexpected failure of wood structures in wetland areas with difficult access with the least cost solution. The line inspection was completed in conjunction with the 32 line (A22E56), which shares a right of way.

A22LS DISTRIBUTION AUTOMATION LINE SENSOR - Completed
Install Tollgrade® line sensors at various locations on the distribution system throughout the state. The sensors will monitor current at the installation location and communicate via exception notifications as well as the vendor portal. Future efforts will enable these devices to communicate with the Eversource NH SCADA. This will increase visibility into the Distribution system and may instigate projects to improve reliability on circuits, reveal load balancing or low voltage situations that need to be resolved, or monitor step transformer loading.

A22N60 355 Line Emergent Str Replacement - Completed
Replace four (4) structures located on the right of way of the 34.5 kV 355 line in Northumberland. One structure was identified as in need of immediate replacement. Aerial patrol of the right of way 355 line revealed pole #102 leaning heavily to one side in standing water. Further field investigation revealed poles #103, #104, and #105 need immediate replacement due to advanced degradation below the ground/water line caused by standing water.

A22N71 355 Line Pole Replacement - Under Construction
Helicopter ROW inspection on all 35 miles of the 355 line identified leaning and or damaged structures. The follow up field investigation of those structures showed pole deterioration for upland poles and those below the groundwater surface, rotted crossarms, broken or missing storm guys and crossarm brace(s). This project authorization approves partial funding to perform a full drone inspection, review alternatives, and finalize the scope, engineering design, and environmental controls.

A22RPR Roadside Reject Pole Replacement - Under Construction
The Eversource Maintenance Program requires that all wood poles in Eversource maintenance territory to be inspected every 10 years. This project funds the replacement of poles which are deemed “rejects” as part of the annual inspection program.

A22S10 3217X ROCKY POND RD BACKFEED - Under Construction
This project creates a new feed for the 280 customers at the end of the radial Rocky Pond 3217X ROW tap as well as creating a back feed for the customers at the beginning of this tap. This also provides a more reliable feed to the customers at the end of the 3155X2 circuit currently on the Old Milford Road step transformer who will be transferred to the new feed.

A22S50 3128X GRIFFIN ROAD CONVERSION - Completed
This 3128X project was initiated to address an overloaded step transformer. Removing the overloaded step transformer and converting the full 5,900 feet specified will allow for removal of a 7.2 kV to 19.9 kV step-up transformer feeding an underground development which was built at the higher voltage and will also provide a backfeed to this development.

A22W02 3120X2 RT 119 CONVERSION - Under Construction
The 3120X2 is a large radial circuit with long single-phase taps feeding 191 customers in portions of Fitzwilliam and Richmond. Route 119 in Richmond is fed by Rhododendron Road, which is heavily treed and has several off-road sections. Over the last four years, Rhododendron Road has experienced 28 outages resulting in over 610,000 customer minutes interrupted. To improve reliability, this project will convert 11,300 feet of 2.4 kV to 7.2 kV and construct 2,400 feet of new single-phase to feed Richmond from Route 119.

A22W08 3139X SPOFFORD RD RECONDUCTOR - Completed
The 3193X Distribution line on Spofford Road is the long radial backbone feed into Westmoreland Village with over 600 customers. The road is heavily treed. Outage information revealed that a 2,000 foot section had 10 outages in the last four years caused by trees, resulting in 505,000 customer minutes interrupted. This area has had enhanced tree trimming and danger tree removal but is still susceptible to tree related outages. To improve the resilience of this line, this project will install spacer cable in this high impact line.

A22W26 317/3410 Reconstruction Phase 2 - Under Construction
The 317/3410 line is in poor condition and in a very difficult area due to rugged topography and extensive wetlands. A roadside solution along Route 103 from Bradford to Exit 9 on Interstate 89 in Warner has been approved to improve access to the line at lower cost than rebuilding in the ROW. Phase 1 of this project was completed under project number A20W18. The scope included reconstructing 2.5 miles of the line, from Bradford to Melvin Mills. Phase 2 of this project is to complete the 4.5 miles of roadside construction from Melvin Mills to Warner Exit 9 and to remove the ROW line from Bradford to Warner. Upon completion of Phase 2, the roadside circuit will be fully operational, and the removal of the ROW line can commence.

A22W63 313X1 Riverview UG Replacement - Under Construction
Riverview Apartment Complex was built in the early 1970s and the primary and secondary electric service to the five buildings is all direct buried. A secondary cable failed in February 2022 and temporary repairs were made to restore power. The property is undergoing system improvements to the electric

services and the various building systems. This presents an opportunity to upgrade the 50-year old infrastructure while greatly reducing the likelihood of more failures. The feed to the complex is radial with no existing back feed. The new design incorporates a second primary riser and a loop configuration.

A22W68 3140X Stoddard Rebuild - Completed
The project is to replace a 2,100 foot section of distribution line that was installed in the 1940's and is in poor condition, including three (3) poles that were temporarily repaired during a storm. The line is in a narrow Right of Way (ROW) which is inaccessible because of the rocky terrain and dense vegetation. The new line will be a single phase spacer cable construction on Class 1 poles. A portion of the line will be moved to the roadway and the remaining ROW section will be trimmed to be more accessible.

A22X17 2022 WOOD POLE TREATMENT - Completed
Wood pole treatment of approximately 1,539 structures located on Distribution Right of Way lines in the state of New Hampshire. The treatment is designed to provide a "booster shot" of preservatives to improve the expected performance of the wood poles through the application of a product that provides additional protection against decay and extends the useful life of the pole. Systematic and programmatic implementation of Distribution Wood Pole Treatment has proven to substantially lengthen the service life of wood pole assets.

A22X35 2022 CIRCUIT PATROL REPAIRS - Completed
This project is intended to repair or replace distribution plant discovered to be deficient as a result of the circuit patrols completed in December 2021 and January 2022. The patrols targeted identification of damaged equipment which may result in future outages. The list of items found was assembled and prioritized. A total of approximately 475 items on 2 circuits were repaired or replaced, including broken, leaning, or damaged poles, broken or decayed crossarms and braces, damaged primary conductors, broken or loose guy wires and anchors, damaged insulators or bent pins, broken insulator ties, missing spacer cable spacers, and unfused transformers.

A22X67 NH Cutout Installation 2022 - Completed
To add cutouts to unfused transformers and unfused laterals to improve system reliability. The addition of cutouts to these locations will reduce the number of customers impacted for a fault beyond an unfused location. Specific locations have been identified using patrols and prioritized based upon customer impact.

A22X74 Tripsaver Initiative - Completed
This project is intended to replace approximately 142 existing cut outs with Tripsavers® Cutout-Mounted Reclosers. The installation of these Tripsavers® will increase reliability for Eversource customers by eliminating momentary outages. Tripsavers® will be installed at preselected locations identified through reliability data analytics.

Section 3.2
Prior Years Projects

A16C08 Brook Street S/S 13TR1 Replacement – Under Construction
The 13TR1 switchgear at Brook St S/S is 65 years old and has experienced multiple equipment failures over the last ten years causing the network system to completely lose power. This project will replace the old 13TR1 switchgear with a new 6 bay 15kV metal clad switchgear to provide a reliable power source to the network system.

A17S03 Millyard SS Replacement – Under Construction
This multi-year project rebuilds the Millyard Substation at a new site in Nashua, NH. The existing substation transformers are 68 and 71 years old and the switchgear is of the same vintage. Additionally, over the last few years 3 of the 6 circuit feeders have failed. The substation currently serves 2,700 customers.

A18C07 Eddy SS Control House – Completed
This project is to build a control house in the Eddy Substation yard. The existing control house is in the Public Service Company of New Hampshire Amoskeag Powerhouse adjacent to the Eddy Substation. The Amoskeag generation facilities were sold in 2018 as a result of the generation divestiture in NH. The new control house was needed to house transmission and distribution protection and control systems in a secure building under Eversource access and control.

A18N03 White Lake SS Rebuild – Completed
White Lake Substation in Tamworth, NH became a two (2) transformer 115-34.5 kV substation in the mid-1950s when a 115 kV line (B-112) was constructed as a source to the area. A combustion turbine (CT) generator was added to the substation in 1968 to provide black start capability to the system. The White Lake CT was sold in 2018. This project rebuilt the White Lake SS to address, capacity deficiency, aging equipment, and generation divestiture issues.

A18W06 MONADNOCK SS REPLACE TRANSFRMR TB40 – Under Construction
Full rebuild of Monadnock Substation to address the asset condition of transformer TB40 and the design deficiencies of the existing substation (there are no transformer breakers nor high-side circuit switchers). The rebuild will prevent an outage to the 12,900 customers served by the substation.

A19C33 Animal Protection at Rimmon SS – Completed
There have been sixteen (16) events on the 34.5kV system caused by ravens. TransGard® laser bird defense system will be installed as an engineered solution for this ongoing problem.

A19S40 Amherst SS – PLC Automation Replace - Completed
This project engineers and replaces the PLC designed automation scheme at Amherst Substation. The

PLC designed automation scheme is outdated and a challenge to update and maintain. There are numerous software, firmware, design, and equipment issues with this legacy system.

A20S02 Millyard SS Distribution Line Work – Under Construction
This project is the distribution line work associated with the Millyard Substation rebuild project. The substation project added a pole top SCADA controlled device at Front Street Substation, installed a manhole, and replaced of a section of direct buried cable to a new riser to support the new pole top device.

A20W18 317/3410 Reconductor Bradford to Warner - Completed
The 317/3410 line runs 13.5 miles in ROW from Davisville (Bedford AWC) to Bradford (Newport AWC). The assets are in poor condition and in an area where the terrain is a mixture of year-round water bodies and ravines. Access to the line is challenging for maintenance and emergency repairs. The line does not have a neutral. This project funded the first phase of improving the 317/3410 line. This project constructed a new 2.5 mile roadside 477 MCM spacer cable line from Bradford switching station along Route 103 into Warner.

A20W37 RIVER ROAD SS UPGRADES – Completed
In 2004, Eversource NH purchased the assets and customers from the Connecticut Valley Electric Company (CVEC) including the Sugar River SS in Claremont, NH. The substation has equipment that has been defined as obsolete and replacement parts are no longer available according to the manufacturer. This substation was targeted for upgrades by installing new equipment to improve reliability and to allow the installation of Distribution Automation equipment.

A20X26 Spare 345-34.5 kV Transformer – Under Construction
This is a full funding request to procure a spare 140 MVA 345-34.5 kV transformer, to be designed and installed at Timber Swamp Substation in Hampton, NH. The design and installation will include a new foundation, oil containment, AC power, and alarm inputs to the transformer. In order to provide reliable and timely support to the 34.5kV distribution system transformers at Amherst, Lawrence Road, and Timber substations, an installed spare transformer is necessary.

A21C07 MALVERN VALLEY HANOVER CIRCUIT TIE – Completed
Loss of the Malvern Substation transformer would result in isolation of load because of the Valley 22W1 circuit capacity. Extend the circuit tie between Hanover 16W1 and Malvern 23W2 to increase the backup capability through the 12 kV system for Valley, Malvern, and Hanover substations and reduce the exposure to isolation of load.

A21C91 393 LINE ROW SECTION REBUILD – Completed
Twenty-One (21) aged wooden poles and associated hardware will be replaced with new steel structures along the 393 line in the right of way between Huse Road Substation and Mammoth Road in Manchester, NH. The poles have been identified for replacement due to condition and age. There is no opportunity to relocate this line to a roadway or to rebuild in another location to avoid the wetland area.

A21DA DISTRIBUTION AUTOMATION POLE TOP – Under Construction
This will fund the installation of approximately 75 pole top SCADA controlled devices. These devices provide indication of circuit conditions and allow for remote operation to sectionalize the system and

restore power remotely. Installation of these devices over the last four years have resulted in significant savings in the impact and duration of outages on the distribution system.

A21E08 Circuit Tie 3191X1B to 377X2 – Completed
This project created a new circuit tie between the 3191X1B and 377X2 circuits. The 3191X1B is a radial circuit feeding 1,178 customers and experiences, on average, one fault on the backbone each year impacting the whole circuit. This project reconductored and converted 2,300 feet of #4 bare Cu conductor with 477 spacer cable on the 377X2 on Exeter Road to create a new 34.5 kV circuit tie between the 3191X1B and the 377X2 on Bennett Way in Newmarket, providing a back feed to the 3191X1B from the 377 line.

A21E16 REPLACE ROCHESTER SS BUS TIE AUTOCLOSE – Completed
This project replaced the inoperable GE FANUC 9030 programmable logic controller (PLC) - based auto close scheme at the Rochester substation 34.5kV bus tie breaker BT32 with an updated scheme using a SEL-2411 programmable automatic controller.

A21E94 TIDEWATER FARM URD LOOP – Completed
The underground development off Tidewater Rd in Greenland has a history of outages due to failed direct buried cable. The direct buried cable runs through the woods. And the pad mount transformer 17/23S2T1 is in an inaccessible vegetated area. This project installs a new pad mounted transformer and relocates the inaccessible pad to an accessible location by the roadside. The project replaces direct buried cable with new cable in conduit.

A21N45 Ashland SS – PLC Replacement & P&C Upgrade – Under Construction
This project replaces the Programmable Logic Controller (PLC) based automation scheme at Ashland Substation in Ashland, NH. The PLC based automation scheme is obsolete (approximately 16 years old) and has been difficult to update and maintain.

A21S17 34.5 kV Capacitor Bank Switch Replacement Broad Street – Under Construction
21 vacuum switches were identified as needing replacement in 2008. These switches were prioritized based on age, condition, operating problems, and uniqueness. Seven (7) of these capacitor switches are to be replaced with a vacuum circuit breaker as part of this program.

A21X93 2021 Circuit Patrol Repairs Phase 2 – Completed
This project repaired or replaced distribution plant discovered to be deficient as a result of the circuit patrols on poor performing circuits completed in the Fall, 2021. Repairs and replacements include broken, leaning, or damaged poles, broken or decayed crossarms and braces, damaged primary conductors, broken or loose guy wires and anchors, damaged insulators, bent pins, and broken insulator ties.

Section 4

Worst Performing Circuit Lists

2022 Circuit Hit List - Ranked By COSAIDI - IEEE Criteria - Allocated data

Rank	Circuit	COSAIDI	CAIDI	Circuit MBI	CII	# Outages	Customers Interrupted (CI)	Customer Minutes (CMI)	Customers Served By Circuit	Circuit Miles	Cust Inter Per Mile	Outages Per Mile	Circuit SAIDI	Circuit SAIFI	# Cust_3 Or Mores	#Cust >4Hr Outage	Customer Weighting	Region	AWC
1	316X1_32	4.30	224	4.0	107	97	10,408	2,334,639	3,475	158.8	66	0.6	671.77	2.9948	-	3,158	708.8	NH WESTERN	NEWPORT AWC
2	3139X_31	2.28	133	3.4	51	184	9,298	1,240,152	2,663	151.4	61	1.2	465.65	3.4912	776	732	428.0	NH WESTERN	KEENE AWC
3	31W1_64	1.73	182	3.3	75	69	5,173	939,980	1,428	73.8	70	0.9	658.13	3.6219	1,062	1,467	662.8	NH NORTHERN	TILTON AWC
4	316_32	1.57	196	3.0	34	129	4,361	854,126	3,279	172.4	25	0.7	260.50	1.3301	72	1,216	288.0	NH WESTERN	NEWPORT AWC
5	20W2_42	1.39	190	5.2	86	46	3,970	755,422	1,711	48.9	81	0.9	441.55	2.3205	456	1,707	501.8	NH NORTHERN	TILTON AWC
6	3410_32	1.28	117	7.9	55	108	5,324	636,039	3,879	183.8	32	0.6	179.45	1.5273	1,300	735	433.1	NH WESTERN	NEWPORT AWC
7	319X1_64	1.23	145	6.4	76	61	4,621	667,736	2,474	116.7	40	0.5	269.89	1.8678	-	1,102	259.8	NH NORTHERN	TILTON AWC
8	355X10_76	1.18	183	8.2	43	81	3,509	640,406	2,390	123.4	28	0.7	267.99	1.4684	-	302	139.1	NH NORTHERN	LANCASTER AWC
9	3217X_22	1.10	292	21.7	33	63	2,048	597,081	3,708	97.3	21	0.6	161.04	0.5524	534	652	261.0	NH SOUTHERN	NASHUA AWC
10	336X1_45	1.06	167	1.2	104	33	3,441	576,331	346	30.2	114	1.1	1,664.49	9.9379	1,871	361	1,010.9	NH NORTHERN	CHOCORUA AWC
11	60W1_32	1.03	248	7.3	40	57	2,264	560,767	1,379	33.8	67	1.7	406.62	1.6417	245	597	280.9	NH WESTERN	NEWPORT AWC
12	314X4_22	1.03	98	3.2	70	82	5,756	561,823	1,551	99.0	58	0.8	362.22	3.7110	2,499	67	636.6	NH SOUTHERN	NASHUA AWC
13	3116X1_45	0.98	169	5.0	37	85	3,162	533,971	1,307	86.8	36	1.0	408.52	2.4191	962	474	406.5	NH NORTHERN	CHOCORUA AWC
14	20W1_42	0.98	135	7.5	60	66	3,935	531,860	2,446	63.8	62	1.0	217.45	1.6088	240	937	264.7	NH NORTHERN	TILTON AWC
15	348X3_76	0.97	95	4.2	90	62	5,572	527,631	1,968	110.5	50	0.6	268.15	2.8318	24	78	110.4	NH NORTHERN	LANCASTER AWC
16	392X7_62	0.90	132	8.7	47	79	3,708	487,711	2,679	100.2	37	0.8	182.04	1.3841	164	534	176.6	NH EASTERN	ROCHESTER AWC
17	23X6_22	0.89	172	10.1	85	33	2,794	481,865	2,359	74.2	38	0.4	204.28	1.1845	-	1,124	240.1	NH CENTRAL	BEDFORD AWC
18	85W1_12	0.86	110	4.2	87	49	4,267	467,331	1,476	70.5	61	0.7	316.53	2.8901	-	137	131.3	NH CENTRAL	BEDFORD AWC
19	63W1_65	0.81	126	6.9	85	41	3,482	438,698	2,017	77.0	45	0.5	217.55	1.7267	48	28	89.9	NH EASTERN	EPPING AWC
20	56H2_61	0.74	57	2.2	1,010	7	7,069	400,905	1,306	7.9	892	0.9	306.91	5.4117	-	-	107.4	NH EASTERN	ROCHESTER AWC
21	24X1_36	0.74	132	8.1	33	91	3,024	400,492	2,052	128.9	23	0.7	195.15	1.4735	80	151	107.0	NH WESTERN	KEENE AWC
22	23X5_22	0.70	122	14.4	38	81	3,110	380,819	3,742	122.3	25	0.7	101.78	0.8312	123	131	79.9	NH CENTRAL	BEDFORD AWC
23	362X2_61	0.67	102	7.4	76	47	3,589	365,348	2,210	81.1	44	0.6	165.33	1.6242	-	10	59.4	NH EASTERN	ROCHESTER AWC
24	3155X4_36	0.67	109	7.8	88	38	3,333	364,798	2,171	91.3	37	0.4	168.05	1.5354	-	9	60.2	NH WESTERN	KEENE AWC
25	3108_12	0.65	103	6.4	80	43	3,420	351,035	1,817	62.1	55	0.7	193.25	1.8827	-	90	81.1	NH CENTRAL	BEDFORD AWC
26	37W1_12	0.62	116	6.0	57	51	2,914	337,346	1,463	61.6	47	0.8	230.59	1.9918	52	21	94.3	NH CENTRAL	BEDFORD AWC
27	2W2_41	0.60	70	5.4	113	41	4,649	326,192	2,084	51.1	91	0.8	156.51	2.2306	-	1	54.9	NH NORTHERN	TILTON AWC
28	399X18_61	0.59	53	1.6	608	10	6,077	319,519	808	15.2	399	0.7	395.57	7.5234	-	358	192.2	NH EASTERN	ROCHESTER AWC
29	347_45	0.59	97	12.2	49	68	3,306	321,847	3,354	100.0	33	0.7	95.95	0.9856	-	101	48.7	NH NORTHERN	CHOCORUA AWC
30	3615X2_11	0.58	179	9.9	89	20	1,770	317,368	1,453	42.9	41	0.5	218.37	1.2179	-	609	167.8	NH CENTRAL	HOOKSETT AWC
31	23X4_12	0.58	244	1.0	321	4	1,285	313,002	110	6.7	192	0.6	2,856.29	11.7262	-	878	1,131.4	NH CENTRAL	BEDFORD AWC
32	19W2_45	0.58	143	14.3	34	64	2,183	312,670	2,602	102.1	21	0.6	120.16	0.8389	180	503	153.5	NH NORTHERN	CHOCORUA AWC
33	42X3_32	0.57	133	11.0	44	54	2,349	311,916	2,146	77.1	30	0.7	145.36	1.0947	30	342	108.2	NH WESTERN	NEWPORT AWC
34	317X3_12	0.57	225	11.6	35	39	1,382	310,966	1,333	68.0	20	0.6	233.30	1.0368	-	714	188.8	NH CENTRAL	BEDFORD AWC
35	3133X_23	0.57	136	25.7	43	53	2,287	311,358	4,906	126.8	18	0.4	63.47	0.4662	-	466	92.1	NH SOUTHERN	DERRY AWC
36	W15_31	0.56	97	6.5	53	60	3,170	305,991	1,718	78.9	40	0.8	178.11	1.8452	623	225	220.7	NH WESTERN	KEENE AWC
37	75W2_32	0.53	155	11.6	44	42	1,844	286,507	1,782	53.2	35	0.8	160.82	1.0350	21	323	108.9	NH WESTERN	NEWPORT AWC
38	3271X2_12	0.53	92	7.1	57	55	3,152	289,250	1,861	74.6	42	0.7	155.47	1.6942	1,082	20	273.8	NH CENTRAL	BEDFORD AWC
39	310X3_41	0.52	169	6.1	44	38	1,657	280,692	847	19.3	86	2.0	331.23	1.9554	182	496	226.7	NH NORTHERN	TILTON AWC
40	333X_45	0.50	120	6.7	59	38	2,247	269,335	1,247	44.1	51	0.9	216.54	1.8025	303	8	137.6	NH NORTHERN	CHOCORUA AWC
41	3140X2_36	0.50	92	6.9	49	59	2,912	269,236	1,666	95.8	30	0.6	161.63	1.7482	120	82	92.9	NH WESTERN	KEENE AWC
42	11W1_41	0.50	148	12.9	42	44	1,834	271,143	1,975	38.9	47	1.1	137.27	0.9285	548	211	189.3	NH NORTHERN	TILTON AWC
43	3173X1_12	0.48	93	6.6	68	41	2,795	260,329	1,547	72.4	39	0.6	168.33	1.8072	78	2	74.8	NH CENTRAL	BEDFORD AWC
44	3168X2_62	0.48	122	16.8	60	36	2,145	261,035	2,971	17.1	125	2.1	87.87	0.7220	-	93	44.7	NH EASTERN	ROCHESTER AWC
45	3141X_23	0.48	75	16.5	52	67	3,460	261,132	4,771	113.4	31	0.6	54.74	0.7253	-	156	42.6	NH SOUTHERN	DERRY AWC
46	313X1_36	0.48	124	13.9	33	64	2,099	260,864	2,440	113.3	19	0.6	106.92	0.8603	-	160	61.4	NH WESTERN	KEENE AWC
47	3010X_21	0.48	116	15.0	118	19	2,233	258,337	2,796	41.8	53	0.5	92.41	0.7988	-	98	47.0	NH SOUTHERN	NASHUA AWC
48	399X15_62	0.47	43	2.3	858	7	6,006	256,049	1,146	17.5	343	0.4	223.51	5.2427	-	-	78.2	NH EASTERN	ROCHESTER AWC
49	399X13_62	0.47	43	0.9	1,174	5	5,869	252,608	422	12.9	456	0.4	598.36	13.9021	-	1	209.6	NH EASTERN	ROCHESTER AWC
50	3120_31	0.47	110	7.8	78	30	2,337	257,706	1,514	67.7	35	0.4	170.19	1.5433	-	13	61.5	NH WESTERN	KEENE AWC

EVERSOURCE
2022 Reliability Report

2022 Circuit Hit List - Ranked By Circuit SAIFI - IEEE Criteria

Circuit SAIFI Rank	CoSAIDI Rank	Circuit	COSAIDI	CAIDI	Circuit M	CIII	# Outa	Customers Affected	Customer Minutes	Customers Served	Total Miles	Customers Affected Per Mile	Outages Per Mi	Circuit SAIDI	Circuit SAIFI	# Cust_3 Or Mor	#Cust_>4 HrOutag	Customer Weight	Region	AWC
1	62	393X87_61	0.41	40	0.0	5,623	1	5,623	224,920	1	0.2	31,618	5.6	224,920	5,623.00	-	-	78,722.0	NH EASTERN	ROCHESTER AWC
2	370	317_64	0.02	20	0.1	418	1	418	8,360	2	24.9	17	0.0	4,180	209.00	-	-	1,463.0	NH CENTRAL	BEDFORD AWC
3	66	393X10_62	0.41	40	0.1	5,623	1	5,623	224,920	58	0.8	7,087	1.3	3,878	96.95	-	-	1,357.3	NH EASTERN	ROCHESTER AWC
4	59	393X4_61	0.42	40	0.2	1,878	3	5,635	226,316	87	0.6	9,085	4.8	2,601	64.77	-	-	910.5	NH EASTERN	ROCHESTER AWC
5	63	393X42_61	0.41	40	0.2	5,623	1	5,623	224,920	91	1.1	5,208	0.9	2,472	61.79	-	-	865.1	NH EASTERN	ROCHESTER AWC
6	562	18H3_21	-	6	0.3	107	2	213	1,318	5	0.2	1,046	9.8	264	42.60	-	-	92.3	NH SOUTHERN	NASHUA AWC
7	64	393X2_61	0.41	40	0.3	5,623	1	5,623	224,920	138	1.3	4,238	0.8	1,630	40.75	-	-	570.5	NH EASTERN	ROCHESTER AWC
8	65	393X14_62	0.41	40	0.3	5,623	1	5,623	224,920	158	1.9	2,910	0.5	1,424	35.59	-	-	498.2	NH EASTERN	ROCHESTER AWC
9	426	3165_63	0.01	66	0.4	97	1	97	6,400	3	8.1	12	0.1	2,133	32.33	-	2	747.0	NH EASTERN	PORTSMOUTH
10	56	56H1_61	0.42	40	0.4	2,816	2	5,631	226,360	138	3.4	1,651	0.6	1,145	28.48	-	-	400.6	NH EASTERN	ROCHESTER AWC
11	60	393X12_62	0.42	40	0.5	1,879	3	5,636	226,010	226	2.6	2,128	1.1	1,000	24.94	-	-	350.0	NH EASTERN	ROCHESTER AWC
12	193	3164X7_12	0.11	187	0.5	314	1	314	58,718	13	0.1	4,683	14.9	4,517	24.15	-	-	1,580.9	NH CENTRAL	BEDFORD AWC
13	57	54H2_61	0.42	40	0.5	813	7	5,693	229,653	247	8.1	699	0.9	928	23.01	-	-	324.9	NH EASTERN	ROCHESTER AWC
14	61	393_62	0.42	40	0.6	1,882	3	5,645	227,534	269	11.5	491	0.3	847	21.01	-	5	297.2	NH EASTERN	ROCHESTER AWC
15	49	393X13_62	0.47	43	0.9	1,174	5	5,869	252,608	422	12.9	456	0.4	598	13.90	-	1	209.6	NH EASTERN	ROCHESTER AWC
16	31	23X4_12	0.58	244	1.0	321	4	1,285	313,002	110	6.7	192	0.6	2,856	11.73	-	878	1,131.4	NH CENTRAL	BEDFORD AWC
17	58	54H1_61	0.42	40	1.0	569	10	5,692	226,435	493	5.5	1,040	1.8	459	11.55	-	-	160.8	NH EASTERN	ROCHESTER AWC
18	10	336X1_45	1.06	167	1.2	104	33	3,441	576,331	346	30.2	114	1.1	1,664	9.94	1,871	361	1,010.9	NH NORTHERN	CHOCORUA AWC
19	418	322X15_12	0.01	11	1.4	529	1	529	5,819	61	0.0	18,872	35.7	95	8.67	-	-	33.4	NH CENTRAL	BEDFORD AWC
20	28	393X18_61	0.53	53	1.6	608	10	6,077	319,519	808	15.2	399	0.7	396	7.52	-	358	192.2	NH EASTERN	ROCHESTER AWC
21	20	56H2_61	0.74	57	2.2	1,010	7	7,069	400,905	1,306	7.9	892	0.9	307	5.41	-	-	107.4	NH EASTERN	ROCHESTER AWC
22	48	393X15_62	0.47	43	2.3	858	7	6,006	256,049	1,146	17.5	343	0.4	224	5.24	-	-	78.2	NH EASTERN	ROCHESTER AWC
23	170	79W4_12	0.13	88	3.0	68	12	810	70,949	202	12.4	65	1.0	351	4.01	-	117	140.4	NH CENTRAL	BEDFORD AWC
24	12	314X4_22	1.03	98	3.2	70	82	5,756	561,829	1,551	93.0	58	0.8	362	3.71	2,499	67	636.6	NH SOUTHERN	NASHUA AWC
25	3	31W1_64	1.73	182	3.3	75	69	5,173	939,980	1,428	73.8	70	0.9	658	3.62	1,062	1,467	662.8	NH NORTHERN	TILTON AWC
26	2	3139X_31	2.28	133	3.4	51	184	9,298	1,240,152	2,663	151.4	61	1.2	466	3.49	776	732	428.0	NH WESTERN	KEENE AWC
27	72	3115X11_65	0.38	152	3.5	124	11	1,359	206,509	393	6.3	215	1.7	526	3.46	1,187	397	481.1	NH EASTERN	EPPING AWC
28	419	322X14_12	0.01	11	3.6	529	1	529	5,819	157	1.4	374	0.7	37	3.37	-	-	13.0	NH CENTRAL	BEDFORD AWC
29	375	310X6_41	0.02	215	3.8	47	1	47	10,105	15	0.6	77	1.6	674	3.13	-	-	235.8	NH NORTHERN	TILTON AWC
30	142	355X1_76	0.17	145	3.9	36	18	649	93,779	210	13.0	50	1.4	446	3.08	226	55	209.4	NH NORTHERN	LANCASTER AWC
31	139	360X7_12	0.18	60	4.0	83	20	1,661	100,273	551	26.1	64	0.8	182	3.01	-	-	63.6	NH CENTRAL	BEDFORD AWC
32	1	316X1_32	4.30	224	4.0	107	97	10,408	2,334,639	3,475	158.8	66	0.6	672	2.99	-	3,158	708.8	NH WESTERN	NEWPORT AWC
33	18	85W1_12	0.86	110	4.2	87	49	4,267	467,331	1,476	70.5	61	0.7	317	2.89	-	137	131.3	NH CENTRAL	BEDFORD AWC
34	15	348X3_76	0.97	95	4.2	90	62	5,572	527,631	1,968	110.5	50	0.6	268	2.83	24	78	110.4	NH NORTHERN	LANCASTER AWC
35	225	348X8_76	0.08	101	4.5	34	12	411	41,620	153	8.2	50	1.5	271	2.68	-	21	98.1	NH NORTHERN	LANCASTER AWC
36	448	17H1_21	0.01	13	4.7	49	5	245	3,235	97	0.9	265	5.4	33	2.53	-	-	11.7	NH SOUTHERN	NASHUA AWC
37	51	30W2_64	0.47	123	4.9	60	35	2,092	257,233	846	48.8	43	0.7	304	2.47	624	168	256.4	NH NORTHERN	TILTON AWC
38	525	323X3_12	-	57	4.9	13	3	39	2,238	16	0.1	279	21.4	140	2.44	-	-	43.0	NH CENTRAL	BEDFORD AWC
39	13	3116X1_45	0.98	169	5.0	37	85	3,162	533,971	1,307	86.8	36	1.0	409	2.42	962	474	406.5	NH NORTHERN	CHOCORUA AWC
40	147	3137X5_65	0.17	84	5.0	84	13	1,091	91,312	458	15.8	69	0.8	199	2.38	-	15	72.0	NH EASTERN	EPPING AWC
41	157	3155X8_22	0.15	136	5.1	50	12	594	80,824	251	19.2	31	0.6	322	2.37	-	1	112.9	NH SOUTHERN	NASHUA AWC
42	5	20W2_42	1.39	190	5.2	86	46	3,970	755,422	1,711	48.9	81	0.9	442	2.32	456	1,707	501.8	NH NORTHERN	TILTON AWC
43	164	323X10_12	0.14	158	5.2	470	1	470	74,260	205	0.2	2,070	4.4	362	2.29	-	-	126.8	NH CENTRAL	BEDFORD AWC
44	110	316X2_11	0.25	82	5.3	69	24	1,662	136,957	730	31.3	53	0.8	188	2.28	-	-	65.6	NH CENTRAL	HOOKSETT AWC
45	104	377X3_65	0.27	138	5.4	90	12	1,081	148,998	483	19.4	56	0.6	308	2.24	-	279	149.8	NH EASTERN	EPPING AWC
46	27	2W2_41	0.60	70	5.4	113	41	4,649	326,192	2,084	51.1	91	0.8	157	2.23	-	1	54.9	NH NORTHERN	TILTON AWC
47	113	3525X5_77	0.24	68	5.5	146	13	1,894	128,477	861	61.8	31	0.2	149	2.20	-	-	52.2	NH NORTHERN	BERLIN AWC
48	166	314X14_22	0.14	171	5.5	76	6	456	77,990	207	8.2	56	0.7	376	2.20	-	-	131.6	NH SOUTHERN	NASHUA AWC
49	230	3137X80_6	0.08	102	5.5	58	7	409	41,914	187	8.9	46	0.8	225	2.19	-	5	79.3	NH EASTERN	EPPING AWC
50	133	377X16_65	0.20	104	5.7	107	10	1,067	110,756	504	11.9	90	0.8	220	2.12	-	152	99.7	NH EASTERN	EPPING AWC