

Reliability Enhancement Program and Vegetation Management Plans

(A) REP and VMP Commitment

For each fiscal year following the effective date of the Rate Plan, the Company will implement a Reliability Enhancement Program Plan (“REP”) and a Vegetation Management Plan (“VMP”) (collectively, “Plans”), as defined below. For purposes of this agreement, a fiscal year is defined as the 12 month period from April 1 through March 31 (“FY”). The purpose of the REP and VMP Plans is to improve the Company’s reliability performance in order to bring the Company back to the historical performance levels that existed prior to 2005, with the goal of meeting those historical performance levels by the end of FY 2013. The Company commits to developing annual REP and VMP Plans for review by Staff with the objective of achieving this purpose.

(B) Definitions of REP and VMP Activities

(1) Activities included in the REP are the following:

(a) “Feeder Hardening” Activities: The term “Feeder Hardening” is used by the Company to refer to a targeted program to improve the performance of the Company’s worst performing feeders through remediation measures. Remediation measures may include equipment upgrades, such as replacement of fuse cutouts, crossarms, poles, and transformers; installation of reclosers; lightning protection with bonding, grounding, and lightning arresters installations; and installation of animal guards. The best feeders to “harden” are identified by reviewing

cost/benefit and performance data. Feeders are inspected and design packages are created for the required construction.

(b) “Augmented tree trimming and clearing”: The term “Augmented tree trimming and clearing” is used by the Company to refer to the implementation of hazard tree removal into the cycle tree trimming program beyond what is normally included in tree trimming and improving circuit performance related to overhead vegetation. The enhanced specification is implemented to reduce overhead interruption risks by removing dead, dying, and damaged limbs from above the conductor, as well as increasing the overhead clearances to fifteen feet outside of residential areas. The augmented plan integrates the hazard tree removal program into the routine scheduled trimming, creating a more aggressive approach to removing tree hazards and overhang to improve performance.

(c) “Asset Replacement”: The asset replacement component of the REP targets potted porcelain cutouts, oil fuse cutouts, distribution transformers, underground cable, and poles for replacement. In addition, it includes adding new line reclosers and reconductoring selected feeders with spacer cable.

(d) “Inspection and Maintenance”: The inspection and maintenance component of the REP involves a comprehensive overhead assessment of the Company’s equipment and feeders prior to performance of the REP work.

(2) Activities and expenses included in the VMP are set forth below, with the applicable company charge code in parenthesis:

- (a) Spot Tree Trimming (DM1010);
- (b) Trouble & Restoration Maintenance (DM1210);
- (c) Planned Cycle Trimming (DM1215);
- (d) Cycle Trimming Police Details Expenses (DM1218);
- (e) Tree Hazard Removal (DM1220);
- (f) Interim Trimming (DM1235);
- (g) Tree Planting (DM 1240);
- (h) Subtransmission Right of Way Clearing (DM1250); and
- (i) Other Police Detail Expenses (DO9050).

(C) REP and VMP for Fiscal Year 2008

It is understood that, for FY 2008, the Company has already commenced implementation of the REP and VMP Plans. The Company agrees that it will implement aggressive Plans for FY 2008, with an anticipated budget of \$1,950,000 for operation and maintenance expenses. By May 15, 2008, the Company will make a filing with the

Commission showing actual operating and maintenance (“O&M”) expenses incurred from the REP and VMP Plans’ implementation for FY 2008. To the extent the Company has incurred less than \$1,950,000 of operation and maintenance expenses from implementation of the REP and VMP Plans in FY 2008, the difference will be accounted for and applied to increase the Base Plan O&M amount (as set forth in section (E) below) for the REP and VMP Plans implemented for FY 2009. To the extent the operation and maintenance expenses exceed \$1,950,000, the Company will absorb that cost with no impact to the REP/VMP Adjustment Provision defined below in section (F).

The Company’s REP for FY 2008 also will have capital investments associated with it. The Company will be allowed to make up to \$950,000 of capital investments in its REP plan for FY 2008, the revenue requirement of which will be included in the REP Capital Investment Allowance, as detailed in section (G) below, effective July 1, 2008. It is expected that the Company’s level of investment in FY 2008 will exceed \$500,000.

(D) REP and VMP for FY 2009 through 2013

Beginning with FY 2009, (before the beginning of each fiscal year and no later than February 15) the Company will provide its REP and VMP Plans to Staff for the following fiscal year for Staff’s review. The Company will meet with Staff in technical sessions to discuss the Plans, obtain comments, and answer any questions regarding the plan to be implemented for the subsequent fiscal year.

The REP and VMP Plans shall provide a description of the activities along with targeted expenditures and investments of the proposed Plans to be implemented during

the following fiscal year. The Plans shall also include a description of the extent to which the studies set forth in Section J below were incorporated in the REP and VMP. The Plans will itemize the proposed activities by general category and provide budgets for both operation and maintenance expenses and capital investments expected from implementation of the Plans. The Company will provide an operation and maintenance (“O&M”) budget to Staff that assumes the REP and VMP O&M spending for the fiscal year will be approximately equal to the Base Plan O&M (as defined below in section (E)) for the fiscal year (“Base Plan O&M Budget”). The Company also may provide for consideration alternative Plans with O&M budgets that exceed the O&M Base Amount for the fiscal year.

After review by Staff, the Company will take all reasonable steps it deems appropriate to carry out and implement the Plans, taking into account the comments of Staff. The Company will reconcile actual expenditures and investments with the Plans’ targeted spending levels at the conclusion of the Plans’ period. Review by Staff of the Plans does not relieve the Company of its obligation to operate its business and maintain safe, reliable service through expenditures and other capital investments in the ordinary course of business that are not set forth in the Plans, nor does it bind Staff to a particular position regarding the adequacy and/or effectiveness of the Plans.

(E) O&M Base Expenses for FY 2009 through 2013

There shall be established for the Rate Plan for FY 2009 through FY 2013 a base O&M expense amount equal to \$1,360,000 that is associated with implementation of the

O&M components of the annual REP and VMP (“Base Plan O&M”). Actual expenses incurred by the Company in implementing the O&M components of the annual REP and VMP shall be reconciled to the Base Plan O&M amount of \$1,360,000 and shall be subject to the REP/VMP Adjustment Provision, as set forth in Section F below. Some categories of activities listed in the VMP in section (B)(2) include some of the activities described in the “augmented tree trimming and clearing” component of the REP described in section (B)(1). All of the combined expenses will be counted against the Base Plan O&M amount, along with any REP-related O&M that does not relate to a VMP category.

(F) REP/VMP Adjustment Provision

(1) During each fiscal year, the Company shall track all O&M expenses incurred in implementing the components of the REP and VMP Plans. By May 15 of each year, the Company will make a reconciliation filing with the Commission. To the extent that the Company, in implementing the Plans, incurs expenses in an amount less than the Base Plan O&M amount, the difference between the Base Plan O&M amount and the amount of expenses actually incurred shall be refunded to customers or credited to customers for future REP/VMP program O&M expenditures, as the Commission determines is appropriate, with interest accruing at the customer deposit rate.¹

¹ With respect to FY 2008, section (C) above specifies that it will be carried over to the FY 2009 Base Plan O&M Budget.

(2) To the extent the Plan submitted for review prior to the fiscal year includes a budget higher than the Base Plan O&M Budget and the Company incurs expenses over the Base Plan O&M amount (consistent with the alternative budget reviewed by Staff), the incremental expense above the Base Plan O&M amount shall be included in rates, subject to Commission approval, through a uniform adjustment factor on a per kilowatt-hour basis and recovered over a twelve month period, commencing for usage on and after July 1, with interest accruing at the customer deposit rate. Any over or under-recoveries at the end of the twelve month period shall be taken into account in the next REP/VMP Adjustment Provision reconciliation period. In lieu of a refund, the Commission (at its discretion) may authorize any credits owed to customers to be carried over to the following year's budget.

(G) REP Capital Investment Allowance

The Company shall track all capital investments made in accordance with the REP for each fiscal year including FY 2008 through 2013. At the same time that the Company makes its reconciliation filing for the REP/VMP Adjustment reconciliation, the Company shall file a report detailing the actual amount of capital investments made in accordance with implementing the REP during the prior fiscal year. The report shall include a calculation of the revenue requirement for adding these additional capital investments into rate base, using the imputed capital structure and rates set forth in Section 3.(C) of the Rate Plan, and as illustrated on the accompanying Attachment 1. Provided that the investments were made in accordance with the REP, the Company will

be allowed, subject to Commission approval, a permanent increase in its distribution rates to recover the annual revenue requirement for those investments. This permanent REP Capital Investment Allowance will take effect for usage on and after July 1, at the same time as any REP/VMP Adjustments are implemented for the preceding fiscal year as discussed in section (D) above. (The first Capital Investment Allowance would occur on July 1, 2008.)

(H) Procedure for Adjusting Base Distribution Rates for the REP Capital Investment Allowance

Base distribution rate increases approved pursuant to Section (G) will be implemented in a manner similar to the procedure used to adjust base distribution charges for the Rate Reduction implemented pursuant to Section 1 of the settlement agreement. An illustrative example is provided as Attachment 2 to this Exhibit.

(I) Annual Report, Plan Deviations, and SAIDI/SAIFI Results

The Company will file an annual report on the prior fiscal year's activities at the time it makes its reconciliation and rate adjustment filing described in section (F) above. In implementing the Plans, the circumstances encountered during the year may require reasonable deviations from the original Plans reviewed by Staff. In such cases, the Company would include an explanation of any deviations in the report. For cost recovery purposes, the Company has the burden to show that any deviations were due to

circumstances out of its reasonable control or, if within its control, were reasonable and prudent.

Included in the annual report, the Company will report its SAIDI and SAIFI results for the prior calendar year. The report shall include parallel reporting using the criteria for major storm exclusions from the IEEE Standard 1366 criteria and the definition of major storm events historically used by the Commission for the Company. The Commission definition is 30 concurrent troubles and 15% of customers interrupted, or 45 concurrent troubles (Troubles are defined as interruption events occurring on either primary or secondary lines).

(J) Studies

(1) Within one year of the Commission's approval of the merger, system studies will be completed to determine if additional fuse placement on feeders and taps, additional recloser placement on feeders and taps, and the potential splitting of distribution circuits is warranted. A report shall be generated for each study detailing results, and submitted to Staff.

(2) Within one year after the Commission's approval of the merger, a vegetation management study shall be completed. This study will include, at a minimum, a review of cycle trimming and clearance specifications. The Company plans to employ a consultant to review the entire National Grid vegetation management program, including

New Hampshire specifically. A report shall be generated detailing results and submitted to Staff.

(3) Within one year of the Commission's approval of the merger, transmission outages from 1999 through 2006 will be analyzed separately for the three major work areas for cause to determine if action to improve reliability is required. The study results shall be supplied to Staff in the form of a report detailing the results and actions to be taken.

(4) Within one year of the effective date of the merger, company caused human related outages from 1999 through 2006 will be analyzed separately for the three major work areas for cause to determine if action to improve reliability is required. The study results shall be supplied to Staff in the form of a report detailing the results and actions to be taken.

Granite State Electric Company

Reliability Enhancement Program and Vegetation Management Program

Docket No. DE 13-063

I. REP and VMP Commitment

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

II. Definitions of REP and VMP Activities

a. Activities included in the REP are the following:

- i. Spacer Cable Expansion/Bare Conductor Replacement
- ii. Single Phase Recloser Replacement/Expansion
- iii. Trip Saver Applications

b. **Activities and expenses included in the VMP are set forth below:**

- i. Spot Tree Trimming;
- ii. Trouble & Restoration Maintenance;
- iii. Planned Cycle Trimming;
- iv. Cycle Trimming Police Details Expenses;
- v. Hazard Tree Removal;
- vi. Interim Trimming;
- vii. Tree Planting;
- viii. Subtransmission Right of Way Clearing; and
- ix. Other Police Detail Expenses.

III. REP and VMP for FY 2014 and Thereafter

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

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

IV. **REP/VMP Adjustment Provision**

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

V. **REP Capital Investment Allowance**

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

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

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

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

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

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

State of New Hampshire
Public Utilities Commission



Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities

Docket No. DE 16-383

Stipulation and Settlement Agreement Regarding Permanent Rates

This Stipulation and Settlement Regarding Permanent Rates (the “Settlement Agreement”) is entered into this 15th day of March, 2017, by Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities (“Liberty” or the “Company”), the Office of Consumer Advocate (“OCA”), the City of Lebanon (“City”), and the Staff of the Public Utilities Commission (“Staff”) (collectively, “Settling Parties”). This Settlement Agreement resolves all issues regarding Liberty’s request for permanent rates in this proceeding.

I. INTRODUCTION

On March 30, 2016, Liberty filed its notice of intent to file rate schedules seeking an increase in its annual distribution revenues. The Company filed its proposed rate schedules on April 29, 2016, seeking, as updated later in the proceeding, a \$5.7 million permanent increase in annual distribution revenues. The Company’s updated request for a step increase was to recover an annual revenue deficiency of \$2.7 million based on additional net rate base of approximately \$14.6 million¹ for the twelve month period ending December 31, 2016, and for a process to approve subsequent annual step increases for specific capital projects. The Company requested approval of a 10.3% return on equity (ROE), and a capital structure consisting of 55% equity and 45% debt. The Company supported its filing with the direct testimony of a number of witnesses

¹ Total Plant in Service of \$18.2 million, less \$0.6 million of Accumulated Depreciation and \$3.0 million of Deferred Taxes.

be recovered through the customer charge shall be recovered through the kWh charges for retail delivery service in each rate.

3. Rates G-1, G-2 and M

All rates and charges shall be increased by the same percentage.

The rates and charges for effect on May 1, 2017, including the effect of recoupment and recovery of rate case expense, are shown on Attachment 5. Bill impacts for typical customers are included in Attachment 6.

H. Underground Services

The Company agrees that it shall be the owner of all new single-phase underground services to residential customers as of the implementation date of a new policy as referenced below. Such ownership of underground services will require the Company to hire additional personnel to perform trench inspections and for line work necessary to install and maintain new underground services. Additionally, changes will be required to the Company's line extension policy in its tariff, and its Requirements for Electric Service Connections booklet to describe the policy and to specify that customers requesting underground services shall be responsible for the excess cost of the underground service as compared to overhead service. The Company shall work with Staff and OCA to accomplish the changes to its policies and shall file revised tariff pages to implement the new policy by September 30, 2017. Additional costs actually incurred associated with personnel that were hired to implement the new policy will be included in the step increase that shall take effect on May 1, 2018, which costs will be subject to review.

I. Reliability Enhancement Program/Vegetation Management Program (REP/VMP)

The Company shall transition to a four-year cycle for tree trimming and vegetation management beginning in 2017. Each year, as part of its REP/VMP reconciliation filing, the

Company shall report the following reliability metrics by circuit all with existing exclusions: Customer Interruptions (CI), Customer Minutes Interrupted (CMI), System Average Interruption Frequency Index (SAIFI), System Average Interruption Duration Index (SAIDI), Customer Average Interruption Duration Index (CAIDI), and Customers Interrupted per Interruption (CII). The Company shall indicate by circuit whether each circuit is still on a five-year trim cycle or whether it has been transitioned to a four-year trim cycle.

The revenue requirement increase agreed to in this Settlement adopts Liberty's proposal to increase the amount of VMP O&M spending included in base rates to \$1,500,000 for 2017 and continuing until changed in a subsequent base rate case. The Settling Parties also agree to increase the target capital investment to \$1,500,000 annually, subject to review with Staff in the year prior to commencement of such investment.

J. Accrual Accounting

For all reconciliation filings made subsequent to the approval of this Settlement, the Company shall use the accrual method of accounting rather than the cash method to better match revenues and expenses for the particular reconciliation period. Such filings include the REP/VMP filing, Annual Retail Rate filing (which includes Transmission and Stranded Costs), and the Energy Service filing.

K. Customer Service

The Company agrees to the following three customer service metrics, which shall remain in place until the date on which the Commission issues a final decision in Liberty's next distribution base rate case:

1. The Company must answer 80% of its calls within 20 seconds, excluding those calls coming through emergency lines, and during major storm events. In the event

State of New Hampshire
Public Utilities Commission

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities

Docket No. DE 19-064

Notice of Intent to File Rate Schedules

Stipulation and Settlement Agreement Regarding Permanent Rates

This Stipulation and Settlement Regarding Permanent Rates (the “Agreement”) is entered into as of the last date signed below by and among Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities (“Liberty” or the “Company”), the Office of the Consumer Advocate (“OCA”), the City of Lebanon (“City”), Clean Energy New Hampshire (“CENH”), and the Staff of the Public Utilities Commission (“Staff”) (collectively, “Settling Parties”). This Agreement resolves all issues regarding Liberty’s request for permanent rates in this proceeding.

I. INTRODUCTION

On March 27, 2019, Liberty filed with the Public Utilities Commission (“Commission”) its notice of intent to file rate schedules seeking an increase in its annual distribution revenues. The Company filed its proposed rate schedules on April 30, 2019, and later updated its rate schedules through its rebuttal testimony, resulting in a requested \$6.3 million permanent increase in annual distribution revenues. The Company also asked the Commission to approve a decoupling mechanism and a multi-year rate plan. The Company requested approval of a 10.0% return on equity and a capital structure consisting of 55% equity and 45% debt. The Company supported its filing with the direct testimony of a number of witnesses from the Company and

the utility plans to rely on innovative rate design techniques such as time-of-use rates, critical peak pricing, etc. For each customer class, Liberty shall specify the general design characteristics (e.g., number of time periods, number of hours within each period, and pricing ratios between each period) and the investment needed to enable the rate design, the associated timeline and the nature of the rollout (e.g., opt-out versus optional rate designs). Liberty shall submit the Advanced Rate Design Roadmap to Commission Staff, the OCA, the City, CENH, and NHDES at least nine months prior to the April 6, 2022, step increase filing, shall discuss the plan in good faith, and shall thereafter include the plan in its next filed Least-Cost Integrated Resource plan or Integrated Distribution Plan filed in connection with or arising out of the Commission's grid modernization proceeding (IR 15-296), and the Company's next rate case, as appropriate.

G. Reliability Enhancement Program/Vegetation Management Program (“REP” and “VMP”)

1. REP

The REP shall terminate with the final order in the “Calendar Year 2020 Annual Report and Reconciliation and Rate Adjustment Filing,” docket, which will seek recovery of REP investments made during the 2020 construction season. Staff and the OCA accept the 2020 REP capital budget, Attachment 7, as presented during the February 6, 2020, REP/VMP meeting. This termination of the REP shall not bar the Company from proposing a PBR mechanism that is similar to the REP for discussion prior to its next distribution rate proceeding, as described in Section II.C above.

The 2021 rate increase to recover 2020 REP costs shall be applied as described in Section II.F.

2. VMP

Under the VMP, the Company shall maintain a four-year cycle for tree trimming and vegetation management and shall continue with the filings and reporting requirements currently in place. The base rate increase agreed to in this Agreement includes an increase in the VMP spending to \$2,200,000 for 2020, which shall continue until changed in a future base rate case. The Company shall not recover any VMP expenses that exceed 10% of that amount, or in excess of \$2,420,000, through the annual reconciliation filing, or otherwise. The VMP spending shall be reconciled each year, with any under spending carried into the next program year or returned to customers, as determined by the Commission.

H. Planning Criteria

Beginning with projects to be put into service after December 31, 2020, the Company shall follow the planning criteria contained in the Distribution Planning Criteria and Strategy document, Attachment 8.

I. Decoupling

Liberty shall implement a decoupling mechanism effective July 1, 2021.

In return for Liberty agreeing to a later date to implement decoupling, the parties agree that Liberty shall be permitted to continue the Lost Revenue Adjustment Mechanism (LRAM) for calendar years 2019 and 2020. Final determination of the LRAM and SBC for billing will be made in DE 17-136, or subsequent energy efficiency dockets. The Settling Parties shall review and approve tariff language implementing the decoupling mechanism prior to Liberty's submission of the decoupling tariff to the Commission in sufficient time for the scheduled July 1, 2021, implementation.

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

November 15, 2019

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

Submitted by:



1 **I. Introduction**

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

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

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

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

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

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

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

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

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

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

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

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

1 **Vegetation Management Cost Drivers**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

1 **II. Conclusion**

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

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

Appendix 1A - O&M Expenses

Line	(a) CY2018 Budgeted Expenses	(b) CY2018 Actual Expenses	(c) CY2019 Adjusted Budget Expense	(d) CY 2020 Budgeted Expenses	(e) CY 2020 Anticipated Fairpoint Credits	Reference
1	VMP O&M					
2	\$ 227,000	\$ 203,159	\$ 213,200	\$ 205,000	\$ 40,180	Appendix 6
3	\$ 30,000.00	\$ 34,811.74	\$ 36,900	\$ 37,000		Appendix 6
4	\$ 30,000	\$ 32,078	\$ 36,900	\$ 37,000		Appendix 6
5	\$ 1,120,086	\$ 1,166,655	\$ 980,000	\$ 1,675,000	*	\$ 328,300 Appendix 6
6	\$ 290,000	\$ 402,083	\$ 400,000	\$ 400,000	\$ 78,400	Appendix 6
7	\$ 400,000	\$ 535,490	\$ 400,000	\$ 400,000	\$ 196,000	Appendix 6
8				\$ 400,000	**	\$ 196,000
9	\$ 30,000	\$ 29,679	\$ 30,000	\$ 30,000		Appendix 6
10	\$ 5,000	\$ 4,345	\$ 5,000	\$ 10,000		Appendix 6
11	\$ -	\$ -	\$ 205,000	\$ 250,000		Appendix 6
12	\$ 25,000	\$ 14,142	\$ -	\$ -		Appendix 6
13	\$ 2,157,086	\$ 2,422,443	\$ 2,307,000	\$ 3,444,000		
14	\$ 480,000	\$ 478,142	\$ 508,267	\$ 838,880	\$ 838,880	
15	\$ 1,677,086	\$ 1,944,301	\$ 1,798,733	\$ 2,605,120		

*Cycle price came in 40% higher

**Included in Docket No. DE 19-064

Appendix 1B "Alternate" - O&M Expenses

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

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

**Included in Docket No. DE 19-064

Appendix 2

REP Capital Investments - Summary

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

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

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Appendix 3 Reliability Enhancement Program Capital Costs

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

Appendix 2, line 5,
 column (d)

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Appendix 4A - O&M Expenses CY 2020 Vegetation Management Activities

Line	Activities	CY 2020 Program Plan (*)	Reference
1	Spot Tree Trimming	As needed	See Appendix 6 for definitions
2	Trouble and Restoration Maintenance	As needed	See Appendix 6 for definitions
3	Planned Cycle Trimming	223.78	See Appendix 6 for definitions
4	Cycle Trimming Police Detail Expenses	As needed	See Appendix 6 for definitions
5	Hazard Tree Removal	As needed	See Appendix 6 for definitions
6	Enhanced Hazard Tree Removal	As needed	See Appendix 6 for definitions
7	Interim Trimming	As needed	See Appendix 6 for definitions
8	Tree Planting	As needed	See Appendix 6 for definitions
10	Other Police Detail Expenses	As needed	See Appendix 6 for definitions
11	Substation	Feeder	OH Miles - Distribution
12	Craft Hill #11	11L1	14.66
13	Slayton Hill #39	39L2	30.31
15	Hanover #6	6L2	4.06
16	Enfield #7	7L1	78.41
17	Spicket River #13	13L3	29.65
18	Pelham #14	14L2	35.39
20	Salem Depot #9	9L1	10.40
22	Salem Depot #9	9L2	1.36
23	Salem Depot #9	9L3	15.04
24	Michael Ave #40	40L3	4.5
25	Total OH Miles - Distribution		223.78
26	Sub transmission		OH Miles - Sub transmission
32	BARRON AVE. #10/SALEM DEPOT #9	2352	3.15 Miles/ 30.13 Acres
33	BARRON AVE. #10	2393	.89 Miles/ 6.57 Acres
35	HANOVER #6/MT. SUPPORT #16/LEB #1*	1303/1304	3.15 Miles (6.3 Total)
27	Total OH Miles - Sub transmission		7.19 mi/36.7 acres

* Portion completed in 2019

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Appendix 4B - O&M Expenses CY 2020 Vegetation Management Activities

Line	Activities	Program Plan (*)	Reference
1	Spot Tree Trimming	As needed	See Appendix 6 for definitions
2	Trouble and Restoration Maintenance	As needed	See Appendix 6 for definitions
3	Planned Cycle Trimming	174.76	See Appendix 6 for definitions
4	Cycle Trimming Police Detail Expenses	As needed	See Appendix 6 for definitions
5	Hazard Tree Removal	As needed	See Appendix 6 for definitions
6	Enhanced Hazard Tree Removal	As needed	See Appendix 6 for definitions
7	Interim Trimming	As needed	See Appendix 6 for definitions
8	Tree Planting	As needed	See Appendix 6 for definitions
10	Other Police Detail Expenses	As needed	See Appendix 6 for definitions
11	Substation	Feeder	OH Miles - Distribution
12			
13			
15			
16	Enfield #7	7L1	78.41
17	Spicket River #13	13L3	29.65
18	Pelham #14	14L2	35.39
20	Salem Depot #9	9L1	10.40
22	Salem Depot #9	9L2	1.36
23	Salem Depot #9	9L3	15.04
24	Michael Ave #40	40L3	4.5
25		Total OH Miles - Distribution	174.76
26	Sub transmission		OH Miles - Sub transmission
32	BARRON AVE. #10/SALEM DEPOT #9	2352	3.15 Miles/ 30.13 Acres
33	BARRON AVE. #10	2393	.89 Miles/ 6.57 Acres
35	HANOVER #6/MT. SUPPORT #16/LEB #1*	1303/1304	3.15 Miles (6.3 Total)
27		Total OH Miles - Sub transmission	7.19 mi/36.7 acres

* Portion completed in 2019

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Appendix 5**Granite State Electric Company****Reliability Enhancement Program and Vegetation Management Program****Docket No. DE 13-063****I. REP and VMP Commitment**

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

II. Definitions of REP and VMP Activities

- a. Activities included in the REP are the following:
 - i. Spacer Cable Expansion/Bare Conductor Replacement
 - ii. Single Phase Recloser Replacement/Expansion
 - iii. Trip Saver Applications

- b. **Activities and expenses included in the VMP are set forth below:**
 - i. Spot Tree Trimming;
 - ii. Trouble & Restoration Maintenance;
 - iii. Planned Cycle Trimming;
 - iv. Cycle Trimming Police Details Expenses;
 - v. Hazard Tree Removal;
 - vi. Interim Trimming;
 - vii. Tree Planting;
 - viii. Subtransmission Right of Way Clearing; and
 - ix. Other Police Detail Expenses.

III. REP and VMP for FY 2014 and Thereafter

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

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

IV. REP/VMP Adjustment Provision

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

V. REP Capital Investment Allowance

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

Appendix 5

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

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

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

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

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

Appendix 6

Definitions

Augmented Tree-Trimming and Clearing: This program involves the removal of hazard trees and limbs beyond what is normally included in tree trimming to reduce the risk of interruptions on the overhead distribution system. In addition to removing dead, dying, and damaged limbs from above the conductor, we also increase overhead clearances to fifteen feet where practical. This additional work is integrated into routine scheduled trimming program to create a more aggressive approach to removing tree hazards and overhang.

Spot Tree Trimming: (Unplanned Work)

This captures all charges for field follow up, review and execution of corrective action required, if any, to mitigate vegetation management concerns requested or reported by a customer.

Trouble and Restoration Maintenance: (Unplanned Work)

This captures all charges for response and corrective action to mitigate isolated tree related trouble, overhead line requests to mitigate tree related trouble and storm responses not covered by a storm specific charge number.

Planned Cycle Trimming:

This captures all charges for annual fiscal year planned cycle pruning activities but does not include police detail expenses.

Cycle Trimming Police Detail Expenses:

This captures all charges for police detail expenses associated with annual planned cycle trim and tree removals.

Tree Hazard Removal:

This captures all charges for removal of dead, dying and/or structurally weak trees, limbs and leads.

Enhanced Hazard Tree Removal –EHTM: captures all charges for the hazard tree removal program directed at improving reliability of on and off cycle poor performing circuits based on removing dead, dying and/or structurally weak trees, limbs and leads on the three phase portions of those targeted circuits using a Customer Served approach beyond each major reliability device point including the lockout section or station breaker to the first reliability device.

Interim Trimming: (Unplanned work)

This captures all charges for mitigation of tree conditions that threaten reliability of one or more sections of primary conductor on a circuit or circuits not contained in the current fiscal year's annual plan of work.

Tree Planting:

This captures all charges for tree replacements in exchange for tree removals of full clearance, tree replacement to remediate property owner complaints, trees planted for Arbor Day events.

Sub-transmission Right of Way Clearing:

This captures all charges for activities related to cutting, clearing, herbicide application and danger tree removal on substation supply lines up to 46 kV.

Other Police Detail Expenses:

This captures charges for all O&M police detail expenses not associated with Planned Cycle Trim.

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Article 20	- Ownership of Poles and Anchors
Article 21	- Cancellation of Existing Agreement
Article 22	- Sole Agreements
Article 23	- Notices; Designated Representatives

THIS AGREEMENT, made this 1st day of October 1980, between GRANITE STATE ELECTRIC COMPANY, a New Hampshire corporation with a principal place of business in Concord, New Hampshire, hereinafter called ELECTRIC COMPANY, and NEW ENGLAND TELEPHONE and TELEGRAPH COMPANY, a New York corporation with a principal place of business in Boston, Massachusetts, hereinafter called TELEPHONE COMPANY.

WITNESSETH THAT:

WHEREAS, the Electric Company and Telephone Company desire to provide for the joint ownership of poles and anchors when and where joint ownership will be of mutual advantage and will be consistent in meeting their service requirements.

NOW, THEREFORE, in consideration of the mutual covenants herein contained the parties hereto do, for themselves, their successors and assigns, mutually covenant and agree as follows:

Scope of Agreement

Article 1: This agreement shall be in effect in each city and town of the State of New Hampshire, in which both the Telephone Company and the Electric Company now or may in the future have the right to operate.

Permission for Joint Ownership

Article 2: Each Company permits the joint ownership of any of its poles and anchors now standing or hereafter erected by it within the said cities and towns under the terms and conditions hereinafter specified, except that each Company reserves the right to exclude from Joint Ownership poles and anchors which, in the Owner's judgement, are necessary for its own sole use.

Rights and Obligations; IOP's

Article 3: To carry out the purpose of this Agreement to facilitate the joint ownership of poles and anchors, the Agreement sets forth the rights and obligations of the Companies with respect to such ownership, including without limitation their rights and obligations with respect to the following matters:

- A. Allocation of ownership and allocation of space
- B. Division of costs and expenses
- C. Acquisition of joint ownership
- D. Construction standards
- E. Performance of work
- F. Payment and billing
- G. Custody and maintenance areas
- H. Changes in character of circuits
- I. Termination of joint ownership
- J. Administration of Agreement

Certain of the basic contractual provisions of this Agreement are not set forth in the body of the Agreement, but are set forth with operational or administrative procedures in Intercompany Operating Procedures (IOP's). IOP's in effect at any time shall be attached hereto and shall be a part of this Agreement. The IOP's in effect or taking effect upon the effective date of this Agreement are listed in Appendix A attached hereto.

The provisions of IOP's in effect at any time shall be subject to review upon the written request of either company given to the other. Amendments to IOP's including elimination of any effective IOP's or addition of new IOP's, shall be made effective by written instrument signed on behalf of each company by a duly authorized officer of such company or by some other duly authorized representative designated herein or by written notice to the other company.

Work
Responsibility

Article 4: The placing of new Jointly Owned poles, guys, and anchors, and the replacing, relocating or removing of existing Jointly Owned poles, guys, and anchors shall be divided equitably between the companies. The work performed by each company shall be subject to mutual agreement, in writing, as set forth in attached Intercompany Operating Procedures (IOP's).

Construction
Standards

Article 5: All construction in connection with the joint ownership of poles, guys, and anchors covered by this agreement shall conform to the latest edition of the National Electrical Safety Code and all applicable New Hampshire codes or to the requirements of either party, whichever may be the more stringent.

Usual Joint
Pole

Article 6: The usual joint pole under this agreement is a 35 foot pole, as described by the American National Standards Institute Specification - 05.1. It is not the intent, however, to preclude the use of poles of greater or lesser length or strength than the usual pole to meet the minimum requirements of the parties hereto and the specifications mentioned in Article 5.

Municipal
Space

Article 7: Upon each of the poles covered by this Agreement, a reasonable amount of space shall, if so desired by municipal authorities or deemed desirable by the parties hereto, be reserved for the municipal fire alarm and police signal wires or cables, owned by the municipality and used exclusively for municipal purposes.

Attachments

Article 8: Each company shall place and maintain its attachments in accordance with the requirements of Article 5. Where temporary construction by one company on Joint Ownership Poles does not conform thereto, and is unsafe or unrestrictive to the other company in its operations, that company will cooperate with the other company in correcting the unsafe conditions or restrictions. Each company shall do the work of placing, maintaining, transferring and relocating its own attachments, even though the company may be required by the terms of this Agreement to pay placing, transferring and relocating costs.

Electrical Interference

Article 9: All supply and communication circuits and their connected apparatus shall be constructed, operated and maintained to avoid or minimize electrical interference by one company with the other. Where such interference is experienced, those measures shall be applied which will most conveniently and economically avoid or minimize the interference.

Payment of Taxes

Article 10: In case any tax, fee and governmental charge is levied or assessed upon the jointly owned property covered by this Agreement, the same shall be divided in accordance with each company's ownership interest; provided, however, that any tax, fee and governmental charge levied or assessed upon said property solely as Telephone property shall be paid by the Telephone Company and any tax, fee and governmental charge levied or assessed upon said property solely as electrical property shall be paid by the Electrical Company.

Bills and Payment for Work

Article 11: Upon the completion of work performed by either company, the expense of which is to be borne wholly or partially by the other company, the company performing the work shall within a reasonable period after its completion render to the other company an itemized statement of charges showing the cost of same, and such charges if found correct, shall be promptly paid.

Existing Rights of Other Parties

Article 12: If either of the companies hereto has, prior to the execution of this Agreement, conferred upon others not parties to this Agreement, without the written consent of other company by contract or otherwise, rights or privileges to use any poles covered by this Agreement nothing herein contained shall be construed as affecting, said rights or privileges, and either party hereto shall have the right, by contract or otherwise, to continue and

extend such existing rights or privileges: it being expressly understood, however, that for the purpose of this Agreement, the attachments of any such outside party, except fire and police signal attachments of municipality, other public authority, or contracts executed by both the companies hereto shall be treated as attachments belonging to the grantor, and the rights, obligations and liabilities hereunder of the grantor in respect to such attachments shall be the same as if it were the actual owner thereof.

Assignment of
Rights

Article 13: Except as otherwise provided in this Agreement, neither company hereto shall assign or otherwise dispose of this Agreement or any of its rights or interests hereunder, or in any of the jointly owned poles and anchors or the attachments or rights-of-way covered by this Agreement, to any firm, corporation or individual, without the written consent of the other party; provided, however, that nothing herein contained shall prevent or limit the right of either company to mortgage any or all of its property, rights, privileges and franchises, or to lease or transfer any of them to another corporation organized for the purpose of conducting a business of the same general character as that of such company, or to enter into any merger or consolidation; and, in case of the foreclosure of such mortgage, or in case of such lease, transfer, merger, or consolidation, its rights and obligations hereunder shall pass to, and be acquired and assumed by, the purchaser on foreclosure, the transferee, lessee, assignee, merging or consolidating company, as the case may be; and provided, further, that subject to all of the terms and conditions of this Agreement, either company may permit any corporation conducting a business of the same general character as that of such company and owned, operated, leased and controlled by it, or associated or affiliated with it in interest, or connected with it, the use of all or any part of the space reserved hereunder on any pole covered by this Agreement, for the attachments used by such company in the conduct of its said business; and for the purpose of this Agreement, all such attachments maintained on any such pole by the permission as aforesaid of either company hereto shall be considered as the attachments of the company granting such permission, and the rights and obligations and liabilities of such company under this Agreement, in respect to such attachments, shall be the same as if it were the actual owner thereof.

Liability
and
Damages
Whether
not J.O.

Article 14: Whenever any liability is incurred by either or both of the parties hereto for damages for injuries to the employees or for injury to the property of either company, or for injuries to other persons or their property arising out of the joint ownership of poles, anchors or guys, or due to the proximity of the wires and fixtures of the parties hereto attached to the jointly owned poles, anchors, or guys, the liability for such damages, as between the parties hereto, shall be as follows;

(a) Each party shall be liable for all damages for injuries to persons other than its own employees or property other than its own caused solely by its negligence, solely by its failure to comply with at any time with the specifications herein provided for or solely by its failure to perform its obligations hereunder and agrees to indemnify, hold harmless and defend the other party on account thereof.

(b) Each party shall be liable for all damages for injuries to its employees or damage to its property caused solely by its negligence or by its failure to comply with the specifications referred to in Article 5 of this Agreement or by its failure to perform its obligations hereunder or caused by the concurrent negligence or failure of both parties and agrees to indemnify, save harmless and defend the other party on account thereof. When either party hereto, or its insurer, shall make any payments to an employee or to his relatives or representatives on account of an injury caused in a manner described in this Article, in conformity with (1) the provisions of any workmen's compensation act or any act creating a liability in the employer to pay compensation for personal injury to an employee by accident arising out of or in the course of the employment whether based on negligence on the part of the employer or not or (2) any plan for employee's disability benefits or death benefits now established or hereafter adopted by the parties hereto or either of them, such payments shall be construed to be damages within the terms of this paragraph.

(c) In the case of damages resulting from injuries to persons other than employees of either party, or from damage to property not belonging to either party that are caused in part by each party, whether through such party's negligence or through its failure to comply with the specifications referred to in Article 5 of this Agreement or by its failure to perform its obligations hereunder or are due to causes which cannot be traced solely to the sole negligence of one party or failure of one party to comply with said specifications or perform its obligations hereunder, each party shall be liable for said damages in proportion to the amount of negligence attributable to it and each party shall indemnify, hold harmless and defend the other party for its proportionate share of said damages.

(d) Where the claimant desires to settle any such claim upon terms acceptable to one of the parties hereto but not to the other, the party to which said terms are acceptable, in addition to paying to the claimant the agreed damages, may, at its election, pay to the other party one-half of the other party's expense, and thereupon said other party shall be bound to indemnify,

save harmless and defend the party making such settlement from all further liability and expense on account of such claim or in any way connected therewith. The term "expense" as used in the preceding sentence shall mean the costs, disbursements, charges and expenditures properly incurred to the date of such settlement, but shall exclude attorney's fees.

Liability and
Damages Jointly
Owned but not
Jointly Used

Article 15: Whenever any liability is incurred by either party or both for damages for injuries to the employees or damage to the property of either party or for injury or damage to other persons or their property arising out of the use of poles, anchors, or guys jointly owned but not jointly used, the liability for such damages, as between the parties hereto, shall be as follows:

The party using the poles, anchors, or guys agrees to indemnify, save harmless and defend the party not using the poles, anchors or guys from any liability in connection therewith, except liability arising out of the negligent erection or maintenance thereof by the party claiming indemnity and liability arising out of the illegal erection or location thereof by the party claiming indemnity.

Contractors
Engaged By
Either Party

Article 16: All contractors and their employees engaged by either party to do any work in connection with jointly used poles or attachments thereon shall, as between the parties hereto only and not for the benefit of any third party, be considered the agent of the party employing them.

Default

Article 17: Whenever either party is in default with respect to any work or obligation that is its responsibility under this Agreement and has not cured the default within 60 days after receipt of written notice thereof from the other party, the other party may elect to have such work performed and shall be reimbursed promptly for all its costs by the defaulting party.

Term of
Agreement

Article 18: This Agreement shall continue in force for two (2) years from the date of execution and thereafter until terminated by either company by not less than one (1) year's notice in writing to the other company, but provisions of this Agreement relating to poles Jointly Owned shall nevertheless continue in full force and effect as to such poles until Joint Ownership thereof is terminated.

Waiver of Portions
of Agreement

Article 19: The failure of either company to enforce or insist upon compliance with any of the terms or conditions of this agreement, or its waiver of the same in any instance or instances, shall not be construed to be a general waiver or relinquishment of any of such terms or conditions, but the same shall be and remain at all times in full force and effect.

Ownership of Poles
and Anchors

Article 20: Title to poles shall be determined as follows, and in each case one-half undivided interest as tenant in common shall pass from the party erecting the pole to the other party:

(a) With respect to any existing pole that the parties have installed prior to the effective date hereof and determined is to be jointly owned, but for which the addendum has not been completely processed, title shall pass, or be considered to have passed, upon payment of the bill relating to the pole.

(b) With respect to poles that are installed after the effective date of this Agreement and that the parties shall have determined are to be jointly owned, title shall pass upon the completion of the work of setting the pole in place.

(c) With respect to solely-owned poles that are now in existence or that are installed in the future and are subsequently determined should be jointly owned, title shall pass upon payment of the bill.

(d) With respect to poles that were previously jointly owned by one of the parties hereto and a third party whose interest has been acquired by the other party hereto, and that are not covered by an addendum between the parties hereto, it is hereby agreed that each party has held and now holds a one-half undivided interest therein as tenant in common.

(e) With respect to jointly owned poles which one party hereto desires to abandon through relinquishment of interest in said poles title thereto shall pass to the other party as of the date of payment of the bill for said poles.

(f) With respect to jointly owned poles which both parties hereto at the same time desire to abandon, the party having custody is hereby authorized and directed by the other party hereto to sell or dispose of the same and in pursuance thereof to pass the title of both parties hereto to any purchaser or otherwise.

(g) Reference to poles" in this Article 20 shall be considered to include both poles and anchors.

Cancellation of Existing Agreement

Article 21: All existing Agreements including Supplements and Amendments thereto listed in Schedule A attached hereto, relating to jointly owned poles, guys, and anchors heretofore entered into between the parties to this Agreement within the territory covered by this Agreement is hereby terminated as of the effective date of this Agreement except as to liabilities already accrued and all of the poles covered under those agreements are hereby brought under this Agreement and hereafter shall be subject to the terms and conditions hereof. Further, this Agreement hereby cancels and supersedes any and all other joint ownership agreements, if any, made in connection herewith by the parties hereto.

Sole Agreements

Article 22: This document and the Intercompany Operating Procedures constitute the entire Agreement between the parties respecting Joint Ownership of poles, guys, and anchors.

Notices: Designated Representatives

Article 23: (a) Notices under this Agreement shall be sent by mail, postage prepaid, to the parties at the following addresses or to such other address as either party may, from time to time, designate in writing:

GRANITE STATE ELECTRIC COMPANY
4 Park Street
Concord, New Hampshire 03301

NEW ENGLAND TELEPHONE AND TELEGRAPH COMPANY
101 Huntington Avenue, (Suite 1910)
Boston, Massachusetts 02199

(b) The designated representatives of the parties at the effective date of this Agreement are the following:

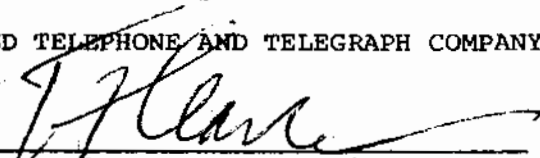
Division Staff Manager - Outside Plant
New England Telephone and Telegraph Company

Manager T&D Control Systems
Granite State Electric System

IN WITNESS WHEREOF each company has caused this Agreement to be executed in its name and its corporate seal to be affixed thereto by its officers thereunto duly authorized the day and year first above written.

NEW ENGLAND TELEPHONE AND TELEGRAPH COMPANY

By

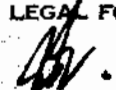

General Manager - Outside Plant

GRANITE STATE ELECTRIC COMPANY

By


President

N.E.T. & T. CO.
APPROVED AS
TO LEGAL FORM



SCHEDULE A

The below listed Agreements are mutually terminated and cancelled as of the effective date of the Agreement to which this Schedule A is attached.

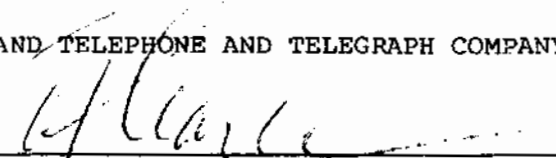
The following named Electric Companies, predecessors of the Granite State Electric Company and the New England Telephone and Telegraph Company, on the following dates, entered into Joint Ownership Agreements covering the joint ownership of poles:

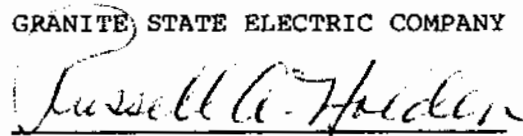
<u>ELECTRIC COMPANY</u>	<u>DATE</u>
Fall Mountain Electric Light and Power Company	11-30-10
Fall Mountain Electric Light and Power Company	09-16-13
Fall Mountain Electric Light and Power Company	11-25-12
Mascoma Electric Light and Gas Company	12-16-14
Fall Mountain Electric Company	10-30-16
The Grafton County Electric Light and Power Company	04-02-18
The Grafton County Electric Light and Power Company	06-30-19
Salem Electric Light Company assigned to Grafton County Electric Light and Power Company	05-27-20
Grafton County Electric Light and Power Company	01-04-21
Grafton County Electric Light and Power Company	01-12-21
Fred D. Tootell, Private Electric Light Company assigned to Grafton County Electric Light and Power Company	05-20-25
Salem Electric Light Company assigned to Grafton County Electric Light and Power Company	03-08-34
Grafton County Electric Light and Power Company	10-29-34
Meriden Electric Light and Power Company	05-11-45

NEW ENGLAND TELEPHONE AND TELEGRAPH COMPANY

GRANITE STATE ELECTRIC COMPANY

BY


General Manager - Outside Plant


President

N.E.T. & T. CO.
APPROVED AS
TO LEGAL FORM

INTERCOMPANY OPERATING PROCEDURES

NEW ENGLAND ELECTRIC

AND

NEW ENGLAND TELEPHONE COMPANY

Companies concurring with this procedure, and effective date of their concurrence, are listed on the attached signature page.

INDEX

IOP A	JOINT POLES
IOP B	REMOVAL OF JOINTLY OWNED/USED POLES
IOP C	CUSTODY AND MAINTENANCE
IOP D	POLE RELOCATIONS
IOP E	POLE ACCIDENT AND THIRD PARTY BILLING
IOP F	PRIVATE PROPERTY POLES
IOP G	POLE INSPECTION, TREATMENT, AND REINFORCEMENT
IOP H	GUYING AND ANCHORS
IOP I	RIGHTS OF WAY
IOP J	TREE TRIMMING AND CLEARING
IOP K	BONDING AND GROUNDING
IOP L	FLAT RATE BILLING
IOP M	1045, PREPARATION OF FORMS
IOP N	MONTHLY BILLING PROCEDURE
IOP O	JOINT CONSTRUCTION NOTICE
IOP P	PREPARATION OF JOINT OWNERSHIP -- EXCHANGE OF NOTICE

INTERCOMPANY OPERATING PROCEDURES

IOP J

J. TREE TRIMMING AND CLEARING

It has been agreed the New England Telephone Company and New England Electric System companies will participate in a Joint Tree Trimming arrangement as follows.

All trimming arrangements shall be agreed to on a signed Exchange of Notice Memorandum.

1. Preventive maintenance tree trimming shall be done on a joint basis when both companies have a need.

When it is agreed that both parties will benefit from such Joint Tree Trimming the division of costs will be 75% Electric Company and 25% Telephone Company.

2. Trimming for line extension along existing roads shall be surveyed in the field and a determination made whether both parties have a need. The division of cost shall be 60% Electric Company and 40% Telephone Company.
3. Trimming for line extensions for off road/right-of-way shall be surveyed in the field and where both parties have a need, division of cost will be 50% Telephone Company and 50% Electric Company.
4. Topping of trees, if they present a hazard to both parties, shall be done jointly at a 50/50 division of cost. Whole trees to be removed with municipalities or private owners at 33 1/3% division of cost for each party or on a fair share basis when more than three parties are involved.
5. Heavy storm work such as hurricanes, wet snow, tornadoes, and ice storms will be handled immediately without prior review. Agreement should be reached by field representatives of the two companies as soon as practicable, after each major storm, to determine which lines and to what extent each party will participate, notwithstanding any participation by another party. The parties agree to 50/50 basis for heavy storm work. The parties agree to reciprocal acceptance to each other's tree contractors for heavy storms. Trimming resulting from routine individual storms should be performed jointly at the same division of costs as maintenance trimming. Removal of weakened or topped trees and large limbs which threaten both parties plant should be removed on a 50/50 basis, subject to field review wherever possible.

6. Administration

The Electric Company will annually furnish the Telephone Company a list of areas to be trimmed. The Telephone Company will provide, within 60 days, a suitable list of pole lines or major portions thereof that they want to be trimmed jointly.

Contracts that will exceed \$5,000 in cost to the Telephone Company will be awarded to the lowest of at least four qualified bidding contractors.

Each company will annually furnish the other company with a list of its approved Trimming Contractors. Each company will attempt to utilize contractors that are on both companies approved contractor list.

For work done by a Contractor not on both companies' list of approved contractors, the constructing company will pay the full cost of the Trimming Bill and then bill the other company its share of the total cost. Such bill shall be accompanied by a copy of the contractor's bill. The full cost of any unapproved trimming shall be done by the company that arranged for same.

Bills rendered by the Contractor will include percent and cost to Electric Company and percent and cost to Telephone Company and total cost of the job.

Miscellaneous costs associated with trimming such as police protection, tree wardens payment, obtaining permission, state highway inspector will be shared by the joint owners on the same basis as the IOP provides for trimming costs.

7. This arrangement shall continue for five years unless, after 3 years, both parties agree to modify it. This agreement will automatically renew itself each year unless either party notified the other in writing at least 30 days prior to the end of such yearly period that it wishes to modify or terminate the agreement.

Bruce W. Benney
New England Telephone Company

Alann J. Reed
New England Electric System