



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

Docket No. DE 18-\_\_\_\_\_

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities  
Reliability Enhancement Program and Vegetation Management Program

Calendar Year 2017 Annual Report and Reconciliation and Rate Adjustment Filing

**DIRECT TESTIMONY**

**OF**

**JOEL RIVERA**

**AND**

**JEFFREY CARNEY**

March 16, 2018

THIS PAGE INTENTIONALLY LEFT BLANK

1 **I. INTRODUCTION**

2 **Joel Rivera**

3 **Q. Mr. Rivera, please state your full name and business address.**

4 A. My name is Joel Rivera and my business address is 9 Lowell Rd., Salem, New  
5 Hampshire.

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

7 A. I am employed as the Manager of GIS and Electric System Planning by Liberty Utilities  
8 Service Corp., which provides services to Liberty Utilities (Granite State Electric) Corp.  
9 (“Granite State” or the “Company”). In my capacity as Manager of GIS and Electric  
10 System Planning, I am responsible for managing the electric system capacity, reliability,  
11 integrity, interconnections, protection systems, equipment and system upgrades,  
12 prioritization, and associated budget estimates.

13 **Q. Please describe your educational background and certifications.**

14 A. I graduated from Universidad Interamericana de Puerto Rico in 2003, earning a  
15 bachelor’s degree in electrical engineering. I also graduated from the University at  
16 Buffalo in 2017, earning a master’s degree in electrical engineering.

17 **Q. Please describe your professional experience.**

18 A. In 2006, I began my engineering career as an associate engineer with National Grid USA  
19 (“National Grid”) and a former affiliate of Niagara Mohawk, in Buffalo, New York. In  
20 2009, I had progressed to senior engineer in the distribution planning department for  
21 National Grid’s electric distribution system in Buffalo, New York. Between 2009 and

1 2013, I was promoted to lead engineer and was responsible for distribution planning,  
2 asset management, protection, and reliability functions for National Grid's electric  
3 distribution system in both New England and New York. In 2013, I assumed the role of  
4 Planning Engineer - Electric for Liberty Utilities Service Corp. In 2018, I was promoted  
5 to Manager of GIS and Electric System Planning and am responsible for electric and gas  
6 map records and developing and implementing the company's electric planning  
7 initiatives in the electric delivery business.

8 **Q. Have you previously testified before the New Hampshire Public Utilities  
9 Commission (the "Commission")?**

10 A. Yes, I have previously testified before the Commission on the Company's Reliability  
11 Enhancement Program.

12 **Jeffrey Carney**

13 **Q. Mr. Carney, would you please state your full name and business address?**

14 A. My name is Jeffrey Carney and my business address is 407 Miracle Mile, Lebanon, New  
15 Hampshire.

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

17 A. I am employed by Liberty Utilities Service Corp. as the Program Manager of Inspections  
18 and Vegetation. In that capacity I support Electric Operations and plan, budget, and  
19 manage Granite State's inspection and vegetation management programs; vendor  
20 performance; and storm and regulatory support on the distribution and sub transmission  
21 assets.

1 **Q. Please describe your educational background.**

2 A. I graduated from Paul Smith's College of Arts and Sciences in Paul Smiths, New York,  
3 in 1976. I received an associate's degree in Applied Science in Forestry and Land  
4 Surveying.

5 **Q. Please describe your professional experience.**

6 A. I joined Liberty Utilities Service Corp. on April 1, 2012, when I assumed the transitional  
7 responsibility as Vegetation Supervisor for the National Grid FY13 Vegetation  
8 Management Program. Prior to that, I served as the System Arborist for National Grid  
9 Service Company from 2007 to 2012. From 2005 to 2007, I was the New England North  
10 Lead Arborist and oversaw New England North Arborists responsible for developing  
11 forestry strategy and delivery the work plan. During that time, I simultaneously served as  
12 the Company's District Arborist in New Hampshire. I was the Transmission and  
13 Distribution Forester for Granite State and New England Power Company's territory in  
14 New Hampshire and Vermont from 1989 to 2005. From 1979 to 1989, I was a self-  
15 employed Consulting Forester.

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

17 A. Yes. I have previously testified before this Commission on vegetation management  
18 issues.

1 **II. PURPOSE OF TESTIMONY**

2 **Q. What is the purpose of this testimony?**

3 A. This testimony provides the Commission with background information regarding the  
4 Reliability Enhancement Program (“REP”) and Vegetation Management Program  
5 (“VMP”) that Granite State implemented during Calendar Year 2017 and as described in  
6 the Company’s accompanying Calendar Year 2017 Reliability Enhancement Program and  
7 Vegetation Management Program Report dated March 16, 2018, (the “CY2017  
8 REP/VMP Report”) submitted with this filing. Additionally, this testimony provides  
9 support for the Company’s request to recover \$552,414 for 2017, which represents: i)  
10 \$245,902 of 2017 O&M expense above the Base Plan operating and maintenance  
11 (“O&M”) amount of \$1,500,000; and ii) \$306,512 of O&M costs incurred during 2016  
12 but paid in 2017. The Company also seeks to recover the revenue requirement of  
13 \$166,322, the amount associated with a total of \$1,699,030 in capital investment, broken  
14 down between two program years, CY2016 and CY2017. The total carryover from  
15 CY2016 was \$58,957, as discussed in the CY2017 REP/VMP Report. The 2017 REP  
16 capital expenditures totaled \$1,640,073. Information regarding the calculation of the  
17 REP/VMP Adjustment Provision and the REP Capital Investment Allowance, and the  
18 associated rate impacts, is set forth in the testimony of David Simek, which is a part of  
19 this filing.

1 **III. OVERVIEW OF REP AND VMP**

2 **Q. Please explain the purpose of the REP and VMP.**

3 A. Since 2014, the Company has continued its Vegetation Management and Reliability  
4 Enhancement Programs at agreed upon spending levels subject to annual Commission  
5 approval. *See* Order No. 25,638 (March 17, 2014) (approving the Settlement Agreement  
6 in Docket No. DE 13-063, the “Settlement Agreement”), as amended by Order No.  
7 26,005 (April 12, 2017 ) (approving the Settlement Agreement in Docket No. DE 16-  
8 383). In general, the REP and VMP include categories of both capital (REP) and O&M  
9 (VMP) spending targeted to improve reliability performance. The REP and VMP are  
10 premised on the understanding that a certain amount of annual spending on both capital  
11 and O&M activities is necessary to maintain the safety and reliability of the Company’s  
12 electric distribution system. The Settlement Plan assumed that a base amount of  
13 \$1,500,000 would be spent on O&M activities associated with the VMP during a fiscal  
14 year. In addition, the REP program includes a targeted budget of \$1,500,000 for REP  
15 capital investments for each calendar year.

16 **Q. Please describe what types of activities are included in the REP and VMP.**

17 A. The capital budget included installation of five trip saver units in radial applications. A  
18 significant portion of this budget was also targeted towards the re-conductoring of  
19 approximately three miles of bare mainline primary conductor with spacer cable. These  
20 projects are identified in Appendices 2 and 3 of the CY2017 REP/VMP Report, which  
21 accompanies this testimony. The vegetation management activities consisted of Planned

1 Cycle Trimming, and Interim, Spot, and Trouble Tree Trimming, identified in  
2 Appendices 4 and 5 of the CY2017 REP/VMP Report.

3 **Q. Please explain how the Company decides to allocate funds towards vegetation**  
4 **management and reliability activities within a given year's budget and the process**  
5 **the Company uses to determine which REP/VMP projects to undertake in any given**  
6 **year.**

7 A. Each year, the Company develops an Annual Work Plan that is designed to achieve the  
8 overriding performance objectives of the business (safety, reliability, efficiency, customer  
9 satisfaction, and environmental responsibility). At the outset, the Company compiles a  
10 draft work plan that consists of proposed spending for asset replacement, system  
11 capacity, and performance initiatives, and individual capital projects and work activities  
12 required to comply with franchise or tariff requirements such as pole relocations,  
13 response to damage/failure, and new business construction. Each potential project  
14 specified within the plan includes a business category/justification for the project and  
15 estimated costs. The Company then prioritizes the projects based on the relative risk or  
16 opportunity associated with each project proposal to facilitate the selection of appropriate  
17 projects to be included in the Annual Work Plan. All of the proposed projects then  
18 undergo review and are prioritized to achieve an optimized portfolio of projects  
19 considering the reliability performance data compared to the reliability improvements  
20 targeted by the various programs and the deliverability of the various programs within the  
21 calendar year. The process is designed to ensure the Company arrives at a budget that is  
22 the optimal balance in terms of selecting the investments necessary to maintain and

1 improve the performance of the system, while also ensuring a cost-effective use of the  
2 Company's available resources.

3 **Q. Please explain how capital improvements in the REP/VMP Plan relate to the other**  
4 **capital investments made by the Company to its system.**

5 A. The capital improvements in the REP/VMP Plan are developed within the Company's  
6 overall capital investment plans. The REP/VMP Plan is a subset of that plan and seeks to  
7 develop and implement initiatives to improve the Company's delivery system  
8 performance while still meeting investment obligations in the areas of franchise/tariff  
9 requirements, capacity, and asset replacement.

10 **Q. Please summarize the Company's actual results for the CY2017 REP/VMP Report**  
11 **and the level of recovery the Company is requesting.**

12 A. For CY2017, the Company is required to make a reconciliation filing with the  
13 Commission for both its REP and VMP detailing the actual amounts associated with REP  
14 and VMP activities during the period as compared with budgeted amounts. For the  
15 calendar year 2017, Liberty initially proposed to spend \$2,281,803, which included  
16 \$420,000 that Liberty would bill to FairPoint for its share of planned vegetation  
17 maintenance work. Those reimbursements were excluded from the total amount of VMP  
18 O&M expenses to be recovered, resulting in an adjusted total of VMP O&M expense  
19 budget of \$1,861,803. Consistent with Section III.b. of the Settlement Agreement,  
20 Liberty submitted this alternative budget for Staff's consideration, which is above the  
21 Base Plan O&M Budget amount of \$1,500,000 by \$361,803. Commission Staff  
22 subsequently expressed its support for the budget. The agreement the Company has with

1 FairPoint allows for invoicing for completed work January through June in July and  
2 completed work July through December in January of the following year. The Company  
3 invoiced FairPoint \$442,992 for CY2017. The Company's actual total spending level for  
4 CY2017 was \$1,745,902 for O&M activities related to the VMP, or \$115,901 less than  
5 the filed budgeted amount of \$1,861,803.

6 **Q. Please explain why the Company's actual O&M spending for CY 2017 varied from**  
7 **the Company's original budget.**

8 A. The major spending variances are described below:

9 The Company spent \$72,285 less on work planning than anticipated. Priorities for  
10 performing municipal street light surveys, planning on capital projects, and storm damage  
11 assessment diverted these resources in CY2017.

12 Spot tree trimming was underspent \$11,691 due to lower than anticipated volume of  
13 electric service orders and customer calls.

14 The trouble and restoration budget is for unplanned work based on actual occurrence.  
15 Spending exceeded the budget by \$5,915 due to an increase in unplanned non-storm  
16 related trouble call volume and support of the overhead line department.

17 The Company spent \$57,570 less than budgeted on planned cycle pruning as a result of  
18 removing the Enfield 7L2 feeder and replacing it with the Spicket River 13L1 Feeder.  
19 This decision was made due to field condition and customer count and resulted in a  
20 mileage differential of approximately 14.74 miles at an average cost of \$3,905.70 per  
21 mile.

1 The Company spent \$5,698 more than anticipated for traffic control for police details in  
2 the Town of Salem. The Town of Salem Police costs are now double the crew cost on a  
3 per mile basis.

4 The Company spent \$58,607 more than budgeted on hazard tree removals because  
5 additional risk trees with a higher probability of failure resulting in a negative reliability  
6 impact were identified during the work planning process. The removals that were  
7 completed were the highest risk ranked trees with the highest potential to impact a large  
8 number of customers. These removals are generally larger mature trees, which are more  
9 costly to remove.

10 Interim trimming is generally unplanned work, and we experienced a lower volume of  
11 work that would be needed.

12 **Q. Please explain why the Company's actual Capital spending for CY2017 varied from**  
13 **the Company's original budget.**

14 A. As shown in Appendix 2 of the CY2017 REP/VMP Report, the Company provides the  
15 actual capital investment for 2016 and 2017. The Company's actual total from CY2016  
16 was \$58,957 (Appendix 2, line 5, column (d)) for capital activities related to the REP, or  
17 \$41,043 less than the filed budgeted amount of \$100,000. As shown in Appendix 2, line  
18 6, column c, of the CY2017 REP/VMP Report, the Company's total spending level for  
19 CY2017 was \$1,640,073 for capital activities related to REP, or \$115,073 more than the  
20 filed budgeted amount of \$1,525,000. Key factors for budget variances are described in  
21 the REP/VMP Report for CY2017. In summary, the \$131,344 variance in the Bare

1 Conductor Replacement Program was driven primarily by bid prices being higher than  
2 expected, which resulted in a higher than forecasted investment.

3 **Q. Please summarize the reliability results shown in the CY2017 REP/VMP Report.**

4 A. Metrics for CY2017 are presented in the table below based on both the PUC Standard for  
5 excluding major weather events and the IEEE Standard 1366 method for excluding major  
6 event days. In addition, metrics are presented excluding transmission supply outages,  
7 planned or notified outages, and all other applicable exclusions. The metrics include  
8 customers interrupted (“CI”), customer minutes interrupted (“CMI”), system average  
9 interruption frequency index (“SAIFI”), system average interruption duration index  
10 (“SAIDI”), customer average interruption duration index (“CAIDI”), and customers  
11 interrupted per interruption index (“CIII”).

12 As shown on page 10 of the CY2017 REP/VMP Report, the SAIFI performance of 0.91  
13 and the SAIDI performance of 117.76 for CY2017 continue on an improving, downward  
14 trend, with the 2017 performance slightly better than that of 2013, 2014, and 2016.

15 Calendar year 2015 was an exceptionally favorable year and the Company would not  
16 expect to consistently achieve that level of performance.

17 For 2017, there were events in radial areas that impacted our SAIDI performance. Seven  
18 out of the top ten events for CY2017 occurred in areas that lack feeder ties that would  
19 allow for partial restoration of customers in those areas. Those events led to prolonged  
20 outages, as power could not be restored until damaged equipment was replaced. These  
21 seven events made up approximately 30% of the SAIDI and on average required 250

1 minutes to restore. The top three events for CY2017 made up 23% of the SAIDI and  
2 14% of SAIFI. The top two events occurred on the Lebanon 1L2 feeder and made up  
3 17% of the SAIDI and 12% of SAIFI. Mitigation measures, both inside and outside of  
4 the REP, were implemented in 2017 to improve our reliability performance, specifically  
5 targeting radial and poor performing areas. In summary, the Company met its SAIFI and  
6 SAIDI targets of 1.35 and 130.73 minutes respectively, which are based on a five-year  
7 rolling average and are shown on Appendix 7. For the past four years, the Company has  
8 met all of its SAIFI targets and has only missed its SAIDI target once, which occurred in  
9 CY2014. Some level of variability is to be expected in the year to year metrics, typically  
10 rooted in weather pattern changes. Liberty expects this overall positive performance in  
11 SAIFI and SAIDI to continue as we experience further positive impacts from our  
12 reliability initiatives are experienced.

13 **Q. Are the REP/VMP expenditures for which the Company is now seeking recovery**  
14 **reasonable?**

15 A. Yes. As described in this filing, the expenditures were reasonable because these  
16 expenditures were made for programs that are specifically referenced in the Settlement  
17 Plan and were necessary to achieve continued improvement in the Company's system  
18 reliability. The work undertaken for vegetation management, single phase recloser and  
19 trip-saver installations, and bare conductor replacement was incurred for the explicit  
20 purpose of improving system reliability and is consistent with the intent of the Secretarial  
21 Letter. These expenditures are expected to generate real customer benefits in the form of  
22 improved reliability performance. As such, the Commission should approve recovery of

1           these expenditures and permit the requested rate adjustments to become effective for  
2           usage on and after May 1, 2018.

3   **IV.   CONCLUSION**

4   **Q.   Does that conclude your testimony?**

5   **A.   Yes, it does.**