



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

Docket No. DE 16-383

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
Distribution Service Rate Case

**DIRECT TESTIMONY
OF
CHRISTIAN P. BROUILLARD
AND
STEPHEN R. HALL**

April 29, 2016

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I. INTRODUCTION AND BACKGROUND

Q. Mr. Brouillard, please state your name, occupation and business address.

A. My name is Christian P. Brouillard and I am employed by Liberty Utilities Service Corp. as Director of Engineering. My business address is 15 Buttrick Road, Londonderry, NH 03053. I am responsible for delivery system planning and capital investments, engineering and design, and maps and records integrity for Liberty Utilities (Granite State Electric) Corp. (“Granite State” or the “Company”).

Q. Please describe your educational background and certifications.

A. I graduated from the University of New Hampshire in 1982, earning a bachelor’s degree in electrical engineering. I also completed the Public Utility Executive Course, sponsored by the University of Idaho. I am a registered professional engineer in the states of New Hampshire and Massachusetts.

Q. Please describe your professional experience.

A. In 1982, I began my engineering career as an associate engineer with Massachusetts Electric Company, a subsidiary of National Grid USA (“National Grid”) and a former affiliate of Granite State, in North Andover, Massachusetts. From 1982 to 1992, I held positions of progressive responsibility in the distribution engineering, planning, protection, and executive support functions. In 1993, I was promoted to Manager of District Engineering and held various engineering and management positions since that time, including Manager of Asset Strategy. In 2005, I became Manager of Work Planning and was responsible for developing Granite State’s capital construction plans. In 2008, I was promoted to Director, Investment Planning for the Company’s electric

1 distribution system in both New England and New York for National Grid. In 2011, I
2 assumed my current role as Director of Engineering for Liberty Energy NH. In January
3 2015 I assumed transitional responsibility for Electric Operations, Gas Production,
4 Control and Dispatch Center, and Compliance Quality and Emergency Management. I
5 am currently responsible for Electric and Gas Engineering, Gas Production, Control and
6 Dispatch Center, and Compliance Quality and Emergency Management.

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

8 **A.** Yes, I have previously testified before the Commission on the Company's Reliability
9 Enhancement Program and its Integrated Resource Plan.

10 **Q. Mr. Hall, please state your name, occupation and business address.**

11 **A.** My name is Stephen R. Hall and I am employed by Liberty Utilities Service Corp. as
12 Director, Rates and Regulatory Affairs. My business address is 15 Buttrick Road,
13 Londonderry, NH 03053. I am responsible for rates and regulatory affairs for Liberty
14 Utilities (EnergyNorth Natural Gas) Corp. and Liberty Utilities (Granite State Electric)
15 Corp. ("Granite State" or the "Company").

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

17 **A.** I received a Bachelor of Science degree in Mathematics Education from the University of
18 New Hampshire in 1977 and a Master's in Business Administration from the University
19 of New Hampshire in 1979.

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

2 **A.** From 1979 through August 2013, I was employed by Public Service Company of New
3 Hampshire in positions of progressive responsibility in the rates and regulatory area of
4 the company. My responsibilities included all aspects of cost recovery and ratemaking,
5 rate design, tariff administration, as well as regulatory relations and supervisory
6 responsibility for revenue requirements. I joined Liberty Utilities in September 2013 and
7 assumed my current responsibilities for rates and regulatory affairs at that time.

8 **Q. Mr. Hall, have you previously testified before the Commission?**

9 **A.** Yes, I have testified extensively before the Commission during my 34-year career at
10 Public Service of New Hampshire and more recently on behalf of Liberty Utilities
11 (“Liberty”). My testimony has covered a wide range of regulatory, ratemaking and
12 pricing issues, as well as testimony in support of many special contracts.

13 **II. PURPOSE OF TESTIMONY**

14 **Q. What is the purpose or your testimony?**

15 **A.** The purpose of our testimony is to propose a series of annual step increases to Granite
16 State’s distribution rates to provide for more prompt recovery of capital investment made
17 in Granite State’s distribution system between rate cases. These step increases are
18 needed to address the issue of earnings attrition that Granite State is experiencing, even
19 with rate cases that are relatively frequent. With more prompt cost recovery for capital
20 investments, the timing of rate cases for Granite State will be less frequent, since the
21 primary factor driving the need for rate cases is recovery of capital investment.

In this testimony, we will describe the circumstances Granite State currently faces that drive the frequency of rate cases. We will also describe the specific capital investments for which recovery through step increases is being sought, and we will discuss the process which will be used to adjust rates each year.

III. DESCRIPTION OF THE ISSUE

Q. Please describe the issue that is driving the need for this proposal.

A. Granite State has experienced significant earnings attrition since its last rate case. Table 1 below shows Granite State's 12-month earned Return on Equity (ROE) as of the end of each quarter since April 1, 2014, the date of implementation of permanent rates following Granite State's last distribution rate case (Docket No. DE 13-063):

Table 1

<u>12-month Period Ending</u>	<u>Return on Equity</u>
March 31, 2014	9.48%
June 30, 2014	11.75%
September 30, 2014	12.06%
December 31, 2014	11.48%
March 31, 2015	6.73%
June 30, 2015	5.68%
September 30, 2015	4.29%
December 31, 2015	3.64%

As shown in Table 1, Granite State's earned ROE increased following the implementation of permanent rates on April 1, 2014, but then began to steadily decline in

2015. While a portion of the decline is due to the fact that Granite State booked the entire recoupment amount in 2014, it is readily apparent that earned ROE is on a downward trend.

Q. What is causing Granite State's earnings attrition?

A. Two factors are driving the earnings attrition that Granite State is experiencing. First, Granite State is replacing aging infrastructure. These replacements are necessary to continue to provide reliable service to customers. As a result, Granite State's capital investment exceeds its depreciation, resulting in growth to rate base. That increase in rate base must be supported by additional equity capital, which reduces return on equity if there is no commensurate earnings growth (i.e., if there is no return earned on the incremental rate base). Second, Granite State's sales levels have not been increasing. As shown in Table 2 below, while there have been some spot load additions in discrete areas, there has been no appreciable increase in Granite State's delivery sales over the last 5 years. While delivery sales in 2015 increased 2.6% as compared to 2014, 2015 sales were at approximately the same level as in 2013, and were only 2.2% higher than sales in 2011, for a compound annual growth rate of about one-half of one percent.

Table 2

<u>Year</u>	<u>Delivery Sales</u>	<u>Percent Change</u>
2011	911,923	-
2012	910,773	-0.1%
2013	932,945	2.4%
2014	905,891	-2.9%
2015	931,780	2.6%

1 Without growth in sales, there is no additional revenue available to recover the cost of
2 and return on incremental investment in Granite State's distribution system. Moreover,
3 as we will discuss below, none of the projects for which step increases are being sought
4 will produce additional revenue for Granite State.

5 As discussed in the testimony of Messrs. Mullen and Gorman, the primary driver of the
6 need for rate relief that is being requested in this docket is capital investment that has
7 been placed in service since completion of the last rate case.

8 **Q. Could Granite State file frequent rate cases to recover the capital investments?**

9 **A.** Yes, it could. However, rate cases consume significant time and resources not only for
10 the Company but also for the Commission, its Staff, and the Office of Consumer
11 Advocate. Beyond the resource requirements, there would still be earnings attrition in
12 the interim years, since it would not be practical to file a rate case every year due to the
13 length of time required to resolve a rate case.

14 **Q. Has the Commission approved ratemaking methodologies that have alleviated**
15 **attrition for Granite State?**

16 Yes. An end of year rate base was allowed in Granite State's last rate case providing for
17 some modest reduction to attrition. In that docket the Commission also approved a
18 settlement which allowed Granite State to include in its permanent rates the recovery of
19 certain capital investments that were placed in service up to one year beyond the end of
20 the test year. While these ratemaking methodologies have helped to alleviate attrition,

1 the phenomenon still exists, as evidenced by Granite State's decrease in its earned return
2 since its last rate case.

3 **Q. Are there any other ratemaking methodologies in place that provide for prompt**
4 **commencement of recovery of capital investment?**

5 **A.** Yes. In Docket No. DG 06-107, the Commission approved Granite State's Reliability
6 Enhancement Program ("REP"). Under that program, recovery of the cost of capital
7 investments in specific projects that are made for the sole purpose of improving
8 reliability performance commences by May 1 of the following year, substantially
9 reducing the regulatory lag that would otherwise occur if recovery did not commence
10 until completion of the next rate case.

11 **Q. Could Granite State reduce its O&M expenses in order to improve its earnings?**

12 **A.** Yes, but only to a limited extent. The Company continuously monitors its expenses and
13 eliminates or reduces its expenses as appropriate to improve its earnings. However, there
14 is a practical limit to how much expenses can be reduced. Significant reduction in O&M
15 expenses (such as in labor) could have a negative effect on Granite State's reliability
16 performance, outage response time, customer service metrics and response to storms.
17 Therefore, Granite State carefully controls its O&M, subject to the need to maintain a
18 high level of operational performance.

1 **IV. PROPOSAL**

2 **Q. Please describe your proposal for addressing the issue of attrition.**

3 **A.** Granite State is proposing to implement a series of annual increases effective May 1 of
4 each year following implementation of permanent rates in this docket. The first such
5 increase will occur on May 1, 2018, for projects placed in service during 2017. The
6 projects for which recovery is being sought and the reasons for undertaking each project
7 are described later in this testimony.

8 The proposed process will be similar to the one currently utilized for REP capital
9 investments, and the timing of the process will be concurrent with the timing of the REP
10 process as described below.

11 In the fall of each year, Granite State will meet with the Staff and OCA to provide an
12 overview of the scope of the work for the project(s) that are scheduled to be completed or
13 commenced in the following year as well as any carryover work that will be performed in
14 the following year. By March 15 of the following year, Granite State will make a filing
15 with the Commission showing the project(s) actually completed and in service by
16 December 31 of the previous year, the cost of each project, and a calculation of the
17 revenue requirement associated with such project(s). Granite State's filing will include a
18 request to increase its distribution rates effective May 1 by the amount of the revenue
19 requirement.

1 **Q. Will the projects be limited to those identified in this testimony, or will they include**
2 **any capital project?**

3 **A.** The projects will be limited to those identified in this testimony, subject to annual review
4 and refinement following the meeting with the Commission Staff. This proposal is not
5 intended to provide the ability for Granite State to recover the cost of all capital
6 investments. Rather, it will be limited to specific projects for which there is a
7 demonstrated need.

8 **V. DESCRIPTION OF PROJECTS**

9 **Q. Please describe the projects that will fall under this proposal, explain why each**
10 **project will be undertaken, and discuss the value that will be realized from**
11 **completion of the project.**

12 **A.** The Company will undertake several system capacity and reinforcement projects in the
13 years 2017 through 2021. These projects are necessary to allow for the phased retirement
14 of substation assets that have exceeded their useful operating and economic lives, as well
15 as to provide additional capacity in specific areas that have experienced residential and
16 commercial load growth over time, which has placed a strain on the existing
17 infrastructure. These projects will also provide for distribution system redundancy and
18 reliability improvement, consistent with the Company's planning criteria.

19 Severally, and in the aggregate, these projects will address area capacity shortfalls,
20 improve reliability, and allow for much needed replacement of assets, some of which
21 were placed into service before World War II. These projects include a major upgrade to
22 the Pelham substation, replacement of the Charlestown substation with capacity from the

1 newly constructed Michael Avenue substation, and an upgrade to the Golden Rock
2 substation in Salem. All projects will involve some joint transmission or substation
3 construction with the transmission service provider, National Grid. A description of each
4 project, the project scope and the anticipated benefits are provided below.

5 **Pelham Substation Upgrade**

6 The Pelham substation was constructed in the 1970s. The original substation transformer
7 is in still in service and has exceeded its thermal loading capability. The substation is
8 supplied by a single transmission line and single transformer.

9 Granite State will install two 13kV feeder positions including overhead and underground
10 street distribution. National Grid will install a second 115kV transmission tap line,
11 115kV circuit breaker, and two 115/13kV transformers.

12 The project will provide for redundant transmission supply and transformation and
13 alleviate the overload condition on the existing transformer, installed in the 1970s. It will
14 reduce feeder loading to comport with Granite State's planning criteria allowing for
15 improved reliability and storm/contingency performance. As part of this project, Granite
16 State will replace the existing 1970s vintage getaway cables with new cables.

17 **Charlestown Substation Retirement**

18 The Charlestown substation was installed in the late 1930s and early 1940s. It is jointly
19 owned and operated with National Grid, and has two 13kV feeder positions. The
20 substation is a wood pole and steel box construction. The poles have reached the end of

1 their useful lives, as have the other substation equipment and control house. A spring fed
2 brook has emerged from the hillside and now runs along the periphery of the substation.

3 Granite State will install two 13kV feeder positions at the nearby Michael Avenue
4 substation, including overhead and underground street construction. Load will be
5 transferred from the Charlestown substation to Michael Avenue and the Charlestown
6 substation will be retired. National Grid will install a second 115kV tap line at Michael
7 Avenue, a second 115kV circuit breaker, and a second 115/13kV transformer.

8 This project will provide for redundant transmission supply and transformation. It will
9 serve customers in that area from a newly constructed substation that is of modern
10 construction and design. The existing assets that are beyond their useful and economic
11 lives will be retired. It will also provide for additional area capacity consistent with
12 Granite State's planning criteria allowing for improved reliability and storm/contingency
13 performance.

14 **Golden Rock Substation Upgrade**

15 The Salem area relies exclusively on the 23kV supply system emanating from the Golden
16 Rock substation and the National Grid sub-transmission system in Massachusetts. There
17 are no 115/13kV substations to provide needed distribution feeder capacity to the area.
18 The existing 23/13kV substations have reached their capacity limits. Two of the
19 substations, Salem Depot and Barron Avenue, were built in the mid-1950s and early
20 1960s, respectively. They also are approaching the end of their useful, economic lives.

Under this project Granite State will install four 13kV feeder positions including overhead and underground street construction. National Grid will install a second 115kV transmission supply line, one 115kV circuit breaker, and one 115/13kV transformer.

This project will provide a 115/13kV transformation source to the Salem area, and distribution capacity backup to the Spicket River substation, currently supplied via a single 23kV supply line from National Grid in Massachusetts. It will reduce the Salem area feeder loading to comport with Granite State's planning criteria allowing for improved reliability and storm/contingency performance. It will also provide for future residential and commercial load growth in the town of Salem. As part of this project, Granite State will phase out and retire the existing Barron Avenue substation and feeder positions, which are reaching the end of their useful economic lives.

Q. What are the estimated costs for each project?

A. The estimated costs for each project are shown below. Table 3 below shows the estimated capital expenditure in each year and the amount that is expected to be used and useful at the end of each year.

Table 3

Project_Description	2017 Capital Budget	Plant In Service as of 12/31/17	2018 Capital Budget	Plant In Service as of 12/31/18	2019 Capital Budget	Plant In Service as of 12/31/19	2020 Capital Budget	Plant In Service as of 12/31/20
Pelham Sub-Add 2nd Xfmr and Fdr Pos	\$2,000,000	\$2,000,000	\$1,600,000	\$1,600,000	\$0	\$0	\$0	\$0
Pelham-New 14L4 Fdr	\$400,000	\$400,000	\$0	\$0	\$0	\$0	\$0	\$0
Pelham-New 14L5 Fdr	\$450,000	\$0	\$350,000	\$750,000	\$0	\$0	\$0	\$0
Charlestown DSub	\$25,000	\$0	\$50,000	\$0	\$2,400,000	\$2,475,000	\$100,000	\$100,000
Charlestown 32 Dline	\$500,000	\$0	\$1,300,000	\$1,800,000	\$0	\$0	\$0	\$0
Golden Rock	\$0	\$0	\$100,000	\$0	\$3,000,000	\$3,100,000	\$5,300,000	\$5,300,000
Total	\$3,375,000	\$2,400,000	\$3,400,000	\$4,150,000	\$5,400,000	\$5,575,000	\$5,400,000	\$5,400,000

1 **Q. What will the incremental revenue requirement be for each year for these projects?**

2 **A.** The estimated incremental revenue requirement for each year is shown in Table 4 below:

3 **Table 4**

<u>Year</u>	<u>Incremental Revenue Requirement</u>
2018	\$390,000
2019	\$627,000
2020	\$855,000
2021	\$779,000

4
5 **Q. Will Granite State seek to recover any costs before a project is placed in service?**

6 **A.** No. The annual rate increase will be equal to the revenue requirement associated with the
7 project(s) placed into service the previous year, or the portions of each project that are
8 placed into service if the entire project has not been completed by the end of the year. If
9 a project spans more than one year, cost recovery will not commence until the year
10 following the year in which the project or a specific portion thereof is placed in service.

11 **VI. CONCLUSION**

12 **Q. Please summarize your proposal.**

13 **A.** Granite State is proposing prompt commencement of cost recovery for specific projects
14 for which there is a demonstrated need, and which provide value to customers. Absent
15 prompt cost recovery, Granite State will be unable to begin recovering the cost of the
16 projects until the completion of a subsequent rate case, which will result in earnings
17 attrition. Prompt recovery of the revenue requirement associated with the projects will

1 result in less frequent rate cases, thus reducing administrative burden and costs for
2 Granite State, the Commission and its Staff, the OCA and, ultimately, customers.

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

4 **A.** Yes, it does.