



**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

**REBUTTAL TESTIMONY
OF
CHRISTIAN P. BROUILLARD**

February 3, 2017

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List of Attachments

Attachment CPB-1	Cannata Response to GSEC 1-13
Attachment CPB-2	Cannata Response to GSEC 1-29
Attachment CPB-3	Cannata Response to GSEC 1-16
Attachment CPB-4	Cannata Response to GSEC 1-31
Attachment CPB-5	Cannata Response to GSEC 1-30
Attachment CPB-6	Cannata Response to GSEC 1-41

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1 **I. INTRODUCTION AND QUALIFICATIONS**

2 **Q. Please state your name and business address.**

3 A. My name is Christian P. Brouillard. My business address is 15 Buttrick Road,
4 Londonderry, NH 03053.

5 **Q. By whom are you employed and in what capacity?**

6 A. I am employed by Liberty Utilities Service Corp. as the Director of Engineering. In my
7 capacity as Director of Engineering, I am responsible for delivery system planning and
8 capital investments, engineering and design, and maps and records integrity for Liberty
9 Utilities (Granite State Electric) Corp. (“Liberty” or the “Company”).

10 **Q. Have you previously submitted testimony in the proceeding?**

11 A. Yes. I submitted pre-filed testimony as part of the Company’s April 29, 2016, filing for
12 an increase in distribution rates. My professional background and qualifications are
13 contained in the prior testimony.

14 **II. PURPOSE OF TESTIMONY**

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

16 A. The purpose of my testimony is to respond to the recommendations of Staff’s Consultant
17 Michael Cannata and Staff’s Witness Richard Chagnon. Mr. Cannata recommended that
18 the Company should not proceed with its new planning criteria, that it should conduct
19 impractical studies related to its move to a four-year trim cycle, and that the Commission
20 should not approve the step adjustments after 2016. My testimony will validate the
21 changes the Company made to its planning criteria and the reasoning behind the changes.

1 I will also underscore the need to proceed with the Company's proposals to implement a
2 process for regulatory review of step candidate projects, our move to a four year cycle
3 vegetation management program, and the substantial benefits that customers will realize
4 from these programs at a very small incremental cost.

5 Mr. Chagnon recommended that the Company change its policy to own, construct, and
6 maintain new single-phase underground extensions to residential customers. My
7 testimony will clarify the Company's position, point out the ramifications of such a
8 change, and recommend changes to the Company's tariff to address these ramifications.

9 **III. COMPANY'S RESPONSE TO STAFF CONSULTANT MICHAEL CANNATA**

10 **Q. Please explain Mr. Cannata's key conclusions and recommendations regarding**
11 **investments stemming from Liberty's planning criteria.**

12 A. In his testimony, Mr. Cannata made the following recommendations related to Liberty's
13 new planning criteria. First, Mr. Cannata recommended that the Commission exclude
14 from rate base any projects undertaken to satisfy the new Liberty planning criteria but
15 that would not have been necessary to meet the former owner's (National Grid) planning
16 criteria. Second, he recommended that Liberty be required to submit cost information by
17 project, broken down into two categories: 1) the cost of each project that would have
18 been required under the legacy National Grid planning criteria; and 2) the cost of each
19 project that was undertaken to meet the newer Liberty planning criteria. Third, Mr.
20 Cannata recommended that Liberty should state and demonstrate the specific planning
21 criteria violations for each project. Fourth, Mr. Cannata recommended that the
22 Commission decide on cost recovery of any projects built to meet the more strict Liberty

1 planning criteria when the Commission reviews any step adjustments allowed by its
2 decision in this case. Finally, while Mr. Cannata questioned the ultimate justification of
3 the step mechanism projects, he did support the 2016 step adjustment, albeit with some
4 timing considerations.

5 **Q. What are the key conclusions and recommendations that Mr. Cannata made**
6 **regarding Liberty's proposed change to a four-year trim cycle in its vegetation**
7 **management program?**

8 A. Mr. Cannata did not clearly state a position on this subject. Although Mr. Cannata did
9 not specifically recommend outright approval of a four-year cycle trim, he did
10 recommend that Liberty track the performance of circuits that have been trimmed to the
11 new Liberty four-year standard on a going-forward basis, compare that to the
12 performance that would have been expected under the minimum vegetation management
13 requirements in Puc 307.10, and report the findings in its annual Vegetation Management
14 Plan filed with the Commission each November.

15 **IV. PLANNING CRITERIA RECOMMENDATIONS**

16 **Q. Do you have any concerns with Mr. Cannata's conclusions and recommendations**
17 **regarding Liberty's proposed planning criteria?**

18 A. Yes. Mr. Cannata raised a number of questions about the development and application of
19 Liberty's recently developed planning criteria to generate supporting investments. First,
20 he recommended a return to the planning criteria employed by the former owner of the
21 Company, National Grid. But Mr. Cannata failed to mention several key elements of

1 Liberty's customer and operating strategies that make Liberty a very different company
2 from the one that operated as a subsidiary of super-regional National Grid.

3 At the time of the sale, Liberty made a commitment to its customers, communities, and
4 the Commission to be a locally managed company, responsive to the needs of our
5 customers and to the communities in which we operate. The Company also committed to
6 invest in delivery system projects in a manner consistent with this strategy. In the short
7 run, this meant initiating and completing the projects that National Grid identified, but
8 never started. In the longer term this commitment meant developing a system design
9 criteria that would appropriately manage the day-to-day, contingency, and storm
10 operating risks for a stand-alone utility of our geographical makeup and resource base.
11 Unlike National Grid or one of the other neighboring utilities, Liberty has a limited
12 number of crews available for response to system outages and contingencies. In contrast,
13 National Grid had an extensive resource base extending from Western New York to
14 Eastern Massachusetts, and locally, significant line and substation resources available
15 from nearby Massachusetts. Also, National Grid had spare substation and
16 overhead/underground line equipment available to New Hampshire within a matter of
17 hours. Without a significant increase to its non-in-service inventory, Liberty no longer
18 has such access to spare equipment.

19 Therefore, to meet its commitments, Liberty chose to change its system design criteria to
20 better manage its forward operating risks, and to allow for improved response and
21 flexibility to contingencies as well as to customer growth and load increases. Comparing
22 Liberty's planning criteria to that of National Grid or another nearby large utility is thus

1 unfair and inappropriate. Requiring Liberty to evaluate its system investments using
2 National Grid's planning criteria is also unreasonable and inefficient. As an example,
3 using National Grid's planning criteria, a 24-hour outage to approximately 2,000
4 customers resulting from a 23kV/13kV transformer failure would be acceptable. A sub-
5 transmission (23kV) line outage impacting 4,000 customers and lasting 12 hours would
6 also be acceptable. Such planning and operating constraints are not acceptable to Liberty
7 nor are they consistent with our aforementioned customer strategy. Although a utility the
8 size and scope of National Grid has the robust response capabilities to be able to respond
9 to such large outages, a utility of Liberty's limited size and scope simply cannot respond
10 in the same timeframe to these contingencies.

11 Mr. Cannata admitted in discovery that he has no knowledge of National Grid's key
12 operating statistics and operating parameters.¹ And in response to GSEC 1-29,² he
13 acknowledged that he has no knowledge of Eversource's and Unitil's key operating
14 statistics and parameters. Finally, Mr. Cannata acknowledged in response to GSEC 1-16³
15 that he has not performed any analysis of the Liberty system to determine if the 240MWh
16 Load at Risk would be triggered if Liberty reverted to the former National Grid planning
17 criteria, and therefore declined to provide an opinion of such.

¹ Attachment CPB-1, Cannata response to data request GSEC 1-13.

² Attachment CPB-2.

³ Attachment CPB-3.

1 **Q. In your professional opinion, is the criteria developed by Liberty appropriate for a**
2 **utility of Liberty's size and geographical makeup?**

3 A. Yes. One can better appreciate Liberty's operating constraints and need for revised
4 design criteria by thinking of the Company as two municipal utilities, one in the Salem
5 area and one in Lebanon. Like a smaller municipality, with limited labor and material
6 resources, Liberty's reliability focus has shifted to prevention through the installation of
7 spacer cable, and our system contingency planning has shifted to one placing a greater
8 emphasis on redundancy. That is, given Liberty's substantially reduced response
9 capability and spare parts inventory compared to what it enjoyed as a member of the
10 National Grid family, the prudent course is to focus on prevention and redundancy.

11 **Q. Are there other areas of concern with Mr. Cannata's recommendations?**

12 A. Yes. Mr. Cannata recommended that the Commission require Liberty to submit cost
13 information by project, broken down into two categories: 1) the cost of each project that
14 would have been required under the legacy National Grid planning criteria; and 2) the
15 cost of each project that was undertaken to meet the newer Liberty planning criteria. This
16 dual evaluation is highly inefficient and unnecessary, as stated above.

17 **Q. Are there any inaccuracies in Mr. Cannata's testimony?**

18 A. Yes. Mr. Cannata asserted that Liberty's goal is to provide all distribution feeders and
19 transformers with total redundancy. Cannata testimony Bates 000011. This not Liberty's
20 goal. The planning criteria allow for a managed response to system contingencies that
21 include outages to customers during the Company's response. Total redundancy would
22 theoretically eliminate outages. Mr. Cannata also asserted that Liberty is pursuing the

1 elimination of its 23kV supply system such that Liberty becomes a totally 115/13kV
2 supplied system. This also is not true. Studies undertaken to date would continue to
3 allow for substations supplied at 13kV, 23kV, and 34.5kV, in addition to those supplied
4 at 115kV. Liberty agrees that it is not economical or beneficial to customers to supply all
5 our substations at 115kV.

6 **Q. What would be the cost impact of the new Liberty planning criteria?**

7 A. The new planning criteria projects are estimated by Liberty to cost \$7.2 million over the
8 seven-year period through 2023. Cannata testimony at Bates 000015, line 5. Assuming
9 43,000 customers and recovery over seven years, the nominal capital cost-per-customer
10 would be approximately \$2 per month over the period, without any allocation to the
11 different rate classes. The bill impact to residential customers would be about 14 cents
12 per month during each year of that period. Mr. Cannata has not estimated the cost of the
13 planning criteria projects on an annual basis.⁴ Lastly, at the bottom of Bates page
14 000011, line 21, Mr. Cannata mentioned the “IAI yardstick” of customer benefits is
15 “reliable and safe electricity at reasonable cost.” At Bates 000015, lines 13 and 14 of his
16 testimony Mr. Cannata again mentioned safe and reliable service to customers at
17 reasonable cost. Liberty’s planning criteria indeed meet these measurements based on
18 the above analysis. On this point the Company and Mr. Cannata agree.

⁴ Attachment CPB-4, Cannata response to data request GSEC 1-31.

1 **Q. Did Mr. Cannata address the expected reliability of the planning criteria projects**
2 **proposed by the company?**

3 A. Yes, at Bates 000014, line 5, of his testimony, Mr. Cannata attempted an analysis of the
4 reliability benefits of the planning criteria projects versus those undertaken by the
5 Company as part of its REP program.

6 **Q. Is this analysis well-founded?**

7 A. No. It is not appropriate to directly compare the expected reliability benefits, on a
8 dollars-per-customer interruption (\$/CI) or dollars-per-customer minutes of interruption
9 (\$/CMI) improvement basis, of day-to-day and storm reliability projects with those of
10 planning criteria projects that are designed to address low probability, high impact
11 contingencies. One would not expect such planning criteria projects to favorably
12 compete head-to-head with the projects intended to improve day-to-day reliability. Mr.
13 Cannata, in his response to data request GSEC 1-30,⁵ stated that he has not performed
14 any analysis of the expected outage hours risk mitigation of REP projects versus planning
15 criteria projects, which would be the proper analysis to perform to make this comparison.

16 **V. STEP ADJUSTMENT**

17 **Q. Do you have any clarifications regarding the Company's proposal for an annual**
18 **step adjustment mechanism?**

19 A. Yes. The Company's proposal is a process where each fall, ahead of any actual spending,
20 it would propose capacity projects to Staff for the upcoming calendar year. The

⁵ Attachment CPB-5.

1 Company's proposal would be reviewed and discussed with Staff, and presumably would
2 reach agreement on a list of investments. Also annually in the spring, the Company
3 would make a formal filing seeking cost recovery for those investments made in the
4 previous year, thus providing an opportunity for review and approval by the Commission.
5 This process is identical to that now employed to review and recover investments
6 associated with REP projects. Mr. Cannata overlooked the review and approval steps in
7 this process, which would occur prior to inclusion of any such costs for recovery through
8 rates. The Company makes no presumption as to the results of the future evaluation and
9 review of such projects. The Company's proposal is solely for the Commission to adopt
10 the step project review *process*. The project listing was provided to give the Commission
11 an idea of the scale of the projects, but was not intended for any sort of pre-approval.

12 **VI. VEGETATION MANAGEMENT PROGRAM**

13 **Q. Do you have any comments regarding Mr. Cannata's recommendations for the**
14 **Company's vegetation management program?**

15 **A.** Yes. The Company is seeking to move to a four-year trim cycle. Although Mr. Cannata
16 did not object to the Company's proposal, he did recommend that Liberty track the
17 reliability performance of circuits that have been trimmed to the new four-year standard
18 on a going-forward basis, compare the results to the performance that would have been
19 expected under the minimum vegetation management requirements in Puc 307.10, and
20 report the findings in its annual Vegetation Management Plan filed each November. The
21 Company believes this additional analysis would be difficult if not impossible to conduct
22 with the results and value of any such analysis certain to be highly questionable.

1 Essentially, Mr. Cannata is asking the Company to hypothesize the tree contacts and
2 associated outages that would have occurred under a five-year trim cycle versus those
3 that actually occurred under the four-year trim cycle. In his response to data request
4 GSEC 1-41,⁶ Mr. Cannata suggested that Liberty track reliability metrics on circuits that
5 are still on the five-year trim cycle and compare them to circuits on the four-year cycle
6 circuits. Such a comparison would not provide a fair view of the circuit-by-circuit
7 improvement. In that discovery response, Mr. Cannata also suggested a comparison after
8 the full transition to a four-year cycle is completed, using existing and new trim and
9 outage data over at least two trim cycles. Considering that two full trim cycles would
10 take eight years to complete, the Company questions the value of such a study.

11 **Q. In conclusion, what are the main points of this testimony?**

12 **A.** The Company has validated the changes to its planning criteria and the reasoning behind
13 the changes. The criteria are entirely appropriate for a utility of Liberty's size, scope, and
14 customer commitments; reverting back to National Grid's criteria is not appropriate. Nor
15 is it appropriate or efficient to require dual analyses of the projects against both National
16 Grid and Liberty criteria as part of a cost-recovery filing. The Company also
17 demonstrated that Mr. Cannata's assertions regarding Liberty's future system plans and
18 reliability benefit comparisons were incorrect. The Company clarified that its step
19 mechanism proposal is not a prospective cost recovery mechanism, rather it is a process
20 to allow annual review and approval of the capacity projects proposed by the Company
21 for the upcoming year, and therefore there is no need at this time to exclude any projects

⁶ Attachment CPB-6.

1 from rate base. Lastly, the Company noted that Mr. Cannata did not object to the
2 Company's move to a four-year vegetation management trim cycle, but that his
3 recommendation to conduct a hypothetical five-year trim analysis would be impractical
4 to implement.

5 **VII. II. COMPANY'S RESPONSE TO STAFF WITNESS RICHARD CHAGNON**

6 **Q. What are the recommendations made by Mr. Chagnon?**

7 A. In his testimony, Mr. Chagnon recommended that the Company change its policy to own,
8 construct, and maintain new single-phase underground extensions to residential
9 customers.

10 **Q. What is the basis for his recommendation?**

11 A. Many communities within New Hampshire are served by more than one electric utility.
12 Mr. Chagnon argued that having a consistent policy will improve public understanding of
13 the policy, and will ensure that residential customers are treated in a consistent manner
14 going forward. Further, Mr. Chagnon stated that the electric utilities are the experts and
15 are in the best position to effectively and efficiently own and maintain underground
16 service lines to residential customers. In his opinion, requiring Liberty to own, construct,
17 and maintain new single-phase underground extensions to residential customers going
18 forward will achieve a consistent policy and public understanding for all three electric
19 utilities.

1 **Q. What are the ramifications of such a change in policy?**

2 A. As I indicated in my direct testimony of April 29, 2016, Section V, and as Mr. Chagnon
3 summarized in his testimony, Bates 000006, lines 10-20, such a change in policy would
4 result in additional costs to the Company amounting to \$215,000 per year, in addition to a
5 number of other concerns. The Company would need to recover that incremental cost
6 through its distribution rates.

7 **Q. Are there any other costs that would be incurred if the Company owned**
8 **underground residential line extensions?**

9 A. Yes. The cost of an underground line extension differs from the cost of an equivalent
10 overhead line extension. In some cases, the cost is higher, while in others, it is lower.

11 **Q. In view of these cost differences, what would be needed in order to properly charge**
12 **residential customers for the cost of underground service?**

13 A. The Company would need to revise its line extension policy in the tariff to allow it to
14 charge residential customers requesting underground service in areas currently served by
15 overhead lines the cost differential of the underground service versus an equivalent
16 overhead service. We would also need to revise the Requirements for Electric Service
17 Connections to reflect this change.

18 **Q. How would the Company determine the excess cost of underground service?**

19 A. The Company would have to design the line extension under the assumption that it was
20 an overhead extension. It would then design the same line extension as an underground

1 extension. The customer would be responsible for the incremental cost of the
2 underground extension as compared to the cost of the overhead extension.

3 **Q. Are there any other New Hampshire utilities that have such a provision in their**
4 **policies?**

5 A. Yes, Eversource requires residential customers requesting underground service, in areas
6 served overhead, to pay the differential cost of the underground service versus an
7 equivalent overhead service.

8 **Q. Given approval by the Commission of a payment requirement and a change in**
9 **Liberty's Line Extensions - Policy 2 in its tariff, would Liberty then agree to own all**
10 **single phase underground residential services on a going forward basis?**

11 A. The Company is willing to discuss with Staff how best to transition to this new policy,
12 should the Commission approve it. Since this would obviously be a significant change in
13 policy, it would need to be carefully analyzed to ensure that all possible scenarios are
14 covered prior to filing a revised policy with the Commission.

15 **Q. Are there any other concerns with existing underground services, presently owned**
16 **by the homeowner?**

17 A. Yes. The potential exists for confusion to arise regarding ownership of existing cable
18 following implementation of a new policy of the Company owning such services. The
19 Company would have to undertake a one-time mapping update to indicate which services
20 are Company-owned and which services are customer-owned on its secondary mapping
21 records. If an existing customer-owned service failed, it would be the customer's

1 responsibility to repair the failed service, or to pay the Company to have a new one
2 installed.

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

4 A. Yes, it does.