

**STATE OF NEW HAMPSHIRE
PUBLIC UTILITIES COMMISSION**

DOCKET NO. DE 24-087

**PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
d/b/a EVERSOURCE ENERGY**

**Petition for Exemption from Town of Bethlehem Zoning Ordinance, Art. II, Part D, under
RSA 674:30, III**

DIRECT TESTIMONY OF

**Joseph J. DeVirgilio, Jr.
Willoughby Consulting**

June 06, 2025

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1 **I. INTRODUCTION AND QUALIFICATIONS**

2 **Q. Mr. DeVirgilio, please state your full name and business address.**

3 **A.**My name is Joseph J. DeVirgilio, Jr. My business address is 201 Vicenza Way, North
4 Venice, FL 34275.

5 **Q. Please state your employer and your position.**

6 **A.**I am employed by Suncoast Management Consultants, LLC as its Owner. I am
7 performing this engagement as a subcontractor to Willoughby Consulting.

8 **Q. Are you registered as a Professional Engineer?**

9 **A.**Yes, I hold an inactive license as a Professional Engineer in New York.

10 **Q. Please summarize your educational and professional background.**

11 **A.**I received a Bachelor of Engineering from Stevens Institute of Technology and a Master
12 of Engineering in Electrical Power Engineering from Rensselaer Polytechnic Institute
13 (RPI).

14 **Q. Please summarize your consulting experience.**

15 **A.**I have 12 years of experience as a utility consultant. I have been part of consulting teams
16 performing capital spending reviews, operations improvement initiatives, management
17 audits, and reviews of emergency plans. I have participated in broad management audits
18 for regulatory commissions and led the study teams in the subject areas of HR, IT, Call
19 Center Operations, Collections, Billing, Meter Reading, Field Operations, and others for
20 clients including Southern Connecticut Gas, Management Audit, 2016; Connecticut
21 Natural Gas, Management Audit, 2016; and Yankee Gas, Connecticut, Management
22 Audit, 2014-2015.

23

1 **Q. Please summarize your employment experience.**

2 **A.** I have been actively engaged in the utility industry for over 52 years. I am a retired
3 senior utility executive (Central Hudson Gas & Electric Corporation). My experience
4 spans a wide variety of consulting and executive responsibilities in both the regulated
5 electric Transmission and Distribution (T&D) business and natural gas and the
6 unregulated energy business, including natural gas and electric T&D operations,
7 construction and maintenance, work management planning, and reporting, process re-
8 engineering, H/R, and I/T. I have been responsible for distribution, substation and meter
9 engineering, I/T, meter testing, T&D operations and construction, O&M and capital
10 budgeting, process re-engineering, work management, emergency response, security,
11 strategic planning, purchasing, stores and transportation and human resources and labor
12 relations, staffing and human capital effectiveness assessments, executive and
13 management compensation programs. I have 15+ years of experience as a T&D
14 engineer, supervisor, and senior manager for company-wide T&D operations. For 20+
15 years I also held the CIO role and lead the Utility I/T Steering Committee including the
16 review and approval of all outsourcing contracts, hardware, software, outage
17 management and SCADA software and the associated capital and expense annual
18 budgets. Additionally, I have been a member of the Corporate Executive Capital
19 Allocation and Review Committee responsible for the review of all proposed capital
20 projects and the post completion review of actuals to estimates. I have 25+ years of
21 experience as a H/R executive with responsibility for all aspects of the function,
22 including employment, employee and labor relations, employee safety, and employee
23 benefits, and executive and employee compensation. Additionally, as the chief staffing

1 officer I was responsible for the annual corporate staffing budgets, identification and
2 implementation of technology driven staffing reduction initiatives, productivity
3 improvement initiatives, enterprise-wide staffing and use of non-traditional employees,
4 employee/contractor mix analysis, staffing and turn-over analysis and resulting changes
5 to employment and employee development processes. I have training in mentoring and
6 mediation.

7 **Q. Please summarize your relevant utility experience.**

8 **A.** I have had extensive experience in the following areas:

- 9 ■ Electric T&D Operations, Engineering, and Management – I have 13+ years of
10 experience performing hands-on design and installation management of electric T&D
11 systems and O&M management, including reliability improvement plans and
12 assessments of tree trimming impact on reliability.
- 13 ■ Capital Projects & Programs Evaluations – I have participated in an in-depth
14 evaluation of a major midwestern, urban electric utility's CapEx processes and
15 planning efforts. The utility, at the time, had planned a multi-year, multi-billion-
16 dollar capital program to build new transmission and upgrade its distribution system
17 to improve overall reliability and position it to accept distributed energy resources.
- 18 ■ Capital & O&M Budgeting – I have had more than 25 years of operations support
19 services responsibility, including supply chain, stores, transportation, security, and
20 building services and maintenance. Additionally, I have had more than five years of
21 P&L business responsibility and 30+ years of capital and O&M budget development
22 and execution responsibility for the various management and executive areas of a

1 utility business. I have extensive labor management experience and the impact of
2 labor/contractor decision management on budget outcomes.

3 ■ Performance & Result Management – I have 10+ years of experience as the lead
4 executive responsible for utility performance improvement and the work management
5 system.

6 ■ Management Audits –I have 20+ years of experience in participation, planning,
7 preparation, and execution of the utility side of management audits in both general
8 and subject-specific audits. I was the executive responsible for the utility’s audit
9 response for over 15 years.

10 ■ Human Resources – I have 25+ years of experience as a H/R executive responsible
11 for staffing, labor and employee relations, executive and salaried employee
12 compensation and benefits, and safety. I was the plan administrator for the pension
13 and 401k plans. I have selected and implemented third-party providers for both plans.
14 I have implemented a new executive incentive plan and had administered it since its
15 inception. I have put in place and implemented EEO/AAP plans. I have identified
16 and implemented a “high potential employee” (HPE) selection and development
17 program including executive mentoring.

18 ■ Corporate Mission, Objectives, Goals, and Planning – I have been a member of a
19 corporate Strategic Planning Committee and have several years of experience
20 developing a strategic plan and ensuring goal alignment throughout the utility and
21 other business unit organizations.

22 ■ I/T – I have had over 20+ years of experience as a utility CIO and the Chair of the
23 utility I/T Steering Committee responsible to review and approve the 5-year I/T

1 strategic plan, all I/T projects, the annual capital and expense budgets, and
2 expenditure reviews.

3 **Q. Please describe your experience related to the electric transmission and**
4 **distribution industry specifically.**

5 **A.** I have 15+ years of experience as a T&D engineer, supervisor, and senior
6 manager for the company-wide T&D operations and reliability, construction,
7 maintenance, and support, process re-engineering, Q/P implementations and
8 benchmarking. My process re-engineering experience has included all parts of the T&D
9 operations and customer services organizations, including meter reading, capital
10 construction, T&D maintenance and reliability planning, use of contractors, tree
11 trimming process and call center improvements.

12 **Q. Have you included a more detailed description of your qualifications?**

13 **A.** Yes. More detailed descriptions of my experience and qualifications are included as
14 Attachment A.

15 **Q. Have you previously testified before this Commission or any other Commission?**

16 **A.** Yes. I have previously submitted testimony in Docket No. DE 20-161 Eversource 2020
17 Least Cost Integrated Resource Plan, DE 21-004 Liberty 2021 Least Cost Integrated
18 Resource Plan, Docket No. DE 23-039 Liberty Utilities (Granite State Electric) Corp
19 d/b/a Liberty Request for Change in Distribution Rates, Docket No. DE 24-041 Public
20 Service Company of New Hampshire d/b/a Eversource Energy Petition for Review of
21 Storm Expenses; and DE 24-070 Public Service Company of New Hampshire d/b/a
22 Eversource Energy Request for Change in Distribution Rates. I have also testified before
23 the New York State Public Service Commission as an executive for Central Hudson Gas

1 & Electric Corporation in a rate case proceeding involving gas employee staffing and
2 productivity.

3 **II. SUMMARY OF TESTIMONY**

4 **Q. Please describe the purpose of your testimony today.**

5 A. The purpose of my testimony is to provide a recommendation to the Department of
6 Energy regarding the Company's proposed replacement of the five structures in
7 Bethlehem on the U199 transmission line. Based on the reports of the Company filed
8 with the Commission, and the Department's extensive review of PSNH's responses to
9 data requests, I am recommending the Department support the Company's request for an
10 exemption to the Town's zoning ordinance.

11 **III. DISCUSSION OF REVIEW & FINDINGS**

12 **Q. Please describe your understanding of the Town's zoning ordinance and the**
13 **foundation of the Company's request for an exemption from that ordinance?**

14 A. The Town's Ordinance at Article II, Part D, states: "No building or structure shall be
15 greater than forty (40) feet in height from the average finished grade." RSA 674:30, I
16 authorizes a municipal planning board to, "waive any requirement contained in an
17 ordinance, code, or regulation for any unoccupied structure which is less than 200 square
18 feet in area, which is necessary for the furnishing of utility service for the public health,
19 safety, or general welfare, and for which the utility's siting options are limited by virtue of
20 said structure being a physically integrated component of the utility's transmission or
21 distribution apparatus." While authorized to do so pursuant to RSA 674:30, I, the Town
22 did not grant a waiver and Eversource now requests that the Commission provide an

1 exemption to the Town’s denial as the project is “reasonably necessary for the convenience
2 or welfare of the public.”

3 **Q. What is your understanding of the current scope of this proceeding?**

4 A. In its March 3, 2025 *Order on Motion for Clarification of Scope of Proceeding*,¹ the
5 Commission established “the scope of this proceeding should include the following issues:
6 (1) Whether it is reasonably necessary for Eversource to replace the 100 existing poles
7 with higher structures within Bethlehem; (2) What are the alternatives to Eversource
8 replacing the existing poles with higher structures, including the cost of any alternatives;
9 (3) Are there local concerns related to the proposed higher structures (such as: health and
10 safety, aesthetics, noise, impacts on property values, and environmental impacts); and (4)
11 What are the advantages and disadvantages of Eversource replacing the existing poles
12 with higher structures.” After the March 3 Order, on March 31, 2025, Eversource filed a
13 motion to amend its petition to eliminate consideration of the X178 transmission line,
14 which is the subject of a pending New Hampshire Site Evaluation Committee proceeding.
15 As such, the scope of this proceeding, and thus the scope of my review, is focused only
16 on the five structures in Bethlehem on the U199 transmission line.

17 **Q. Please provide a brief description of the portion of the U199 line that was the**
18 **subject of your review.**

19 A. The portion of the U199 Line within the Town of Bethlehem comprises 5 wood H-Frame
20 structures occupying an existing electric transmission Right-of-Way.

21 **Q. Based on your review, do you believe it is reasonably necessary for Eversource to**
22 **replace the 5 existing poles with higher structures?**

¹ See *Order on Motion for Clarification of Scope of Proceeding*, Order No. 28,108 (March 3, 2025).

1 A. Yes. According to the Company, the current structures will not provide sufficient vertical
2 clearance associated with the increase of conductor size from 795 ACSR to 1272 ACSS.
3 This vertical clearance is dictated by National Electric Safety Code (NESC) standards
4 and internal Eversource clearance standards.² Additionally, the existing structures will
5 not support the additional weight associated with the larger conductor size under severe
6 weather conditions as specified in NESC 250B. If the existing conductor size is not
7 replaced, the U199 normal summer capacity rating will be reduced by 44% on the rest of
8 the upgraded line.³

9 **Q. Do you agree with these engineering assessments made by the company regarding**
10 **the height of the structures?**

11 A. Yes.

12 **Q. As it pertains to the physical condition of the five poles in question, is it your**
13 **understanding that these five structures need to be replaced absent the rebuild of the**
14 **entire U199 line currently underway?**

15 A. Yes. While a previous 2024 study indicated that these five structures did not require any
16 sort of immediate or near-term repair, Eversource's most recent line inspection, conducted
17 by the outside contractor MESA using an unmanned aerial drone, concluded the existing
18 poles have sufficient "pole top rot and uplift" to require replacement in 2026.⁴

19 **Q. Based on your review, do you support Eversource's conclusions based upon the**
20 **updated 2025 assessment?**

21 A. Yes.

² See DOE TS-003, Attachment B.

³ See DOE TS-007, Attachment C.

⁴ See DOE 1-001, Attachment D; DOE TS-001, Attachment E.

1 **Q. Please describe potential alternatives to Eversource replacing the existing poles with**
2 **higher structures.**

3 A. As indicated by the Company in response to discovery requests in this docket, the Company
4 has adopted a like-for-like structure replacement strategy where like structures are installed
5 at or very near to the existing structure locations and height increases are minimized to the
6 greatest extent possible. H-Frame structure designs, which are proposed to be utilized for
7 the replacements, provide a combination of the shortest, most economical transmission
8 structures in the utility industry.

9 An Eversource consultant performed a system-wide analysis for non-wires and grid
10 enhancing technologies. For the U199 Line, two fiber optic paths were chosen that would
11 meet both internal and industry standards. Dual OPGW provides redundancy on the
12 system, because having two separate fiber paths allows for a failure in one path while
13 maintaining communication via the other.

14 During the course of discovery, Eversource also noted any underground construction
15 through rights of way in northern New Hampshire would be cost-prohibitive and would
16 greatly increase (multiple times) the cost of this project. As the Company notes, replacing
17 the existing U199 wooden structures with exact replicas of those in place today would still
18 be inconsistent with the Town's current height ordinance, as the existing structures exceed
19 40 feet in height, but such an approach would also not meet best practices, as well as code
20 requirements and other regulatory considerations.⁵

21 If Eversource were not to receive the requested exemption from the Town height
22 restriction, according to the Company, the current design would be revised to replace the

⁵ See OCA TS-001, Attachment F; OCA 1-002, Attachment I.

1 existing wooden structures with lower steel H-frame structures. Four new midspan
2 structures would then need to be installed to meet NESC ground clearances to the
3 conductor and to remove uplift on the static wire and conductor. So, nine new steel
4 structures would be required to replace the existing five structures. The Company also
5 noted these new non-standard structures would have a reduced lightning protection angle
6 due to the proximity of the static wire to the conductor, leaving the line more susceptible
7 to lightning strikes. The construction of additional structures would result in significant
8 cost increases and significantly more environmental impact. In addition, amendments of
9 existing permits would be required.⁶

10 Finally, Eversource stated that utilizing existing distribution pole routes for the installation
11 of communication conductors would be cost prohibitive due to the substantial increase in
12 conductor length.⁷

13 **Q. Do you agree with Eversource's assessment of the alternatives described above?**

14 A. Yes.

15 **Q. Please describe the advantages and disadvantages of replacing of existing poles with**
16 **higher structures.**

17 A. According to Eversource, based on recent physical inspections and engineering analysis of
18 Eversource's transmission infrastructure, it was observed that many of the existing U199
19 line wooden structures are in need of replacement due to their age, woodpecker damage,
20 insect damage, and pole rot. Other factors which supported performing a full rebuild of the
21 U199 line instead of selective structure replacement include the interest in minimizing
22 scheduled outages for maintenance work, mitigation of environmental impacts from

⁶ See DOE TS-005, Attachment G.

⁷ See DOE TS-004, Attachment H.

1 repeated equipment deployment for selective replacements, specialized resource
2 limitations and achieving efficient deployment of resources in locations along much of the
3 U199 line's rights-of-way where access is challenging owing to mountainous topography
4 and certain remote locations. Selective structure replacement of only the most degraded
5 structures would ultimately require repeated entry into the rights-of-way for additional
6 needed replacements, as the remaining structures' inspection ratings decline, which is more
7 disruptive to the environment, abutters and host communities compared to a full rebuild.
8 In addition, pursuant to updates to the NESC standards adopted since the U199 line was
9 originally constructed, all of the replacement structures must increase in height to varying
10 degrees over the heights of the existing wooden structures to be in compliance with current
11 safety clearance criteria, and to accommodate industry and Eversource best practices for
12 transmission line design, as well as to accommodate needs for vegetation maintenance,
13 facility maintenance, and repair access.
14 As a result of these considerations, Eversource determined that full replacement of the
15 five existing wooden U199 transmission support structures in Bethlehem with taller
16 weathered steel structures that meet those needs and requirements was the only
17 reasonable alternative. Even if there may be perceived aesthetic or other impacts
18 associated with increasing structure heights, Eversource contends that any such concerns
19 would be greatly outweighed by the system reliability and associated public safety
20 interests resulting from the structure and wire replacements.⁸
21

⁸ See OCA 1-002, Attachment I.

1 **Q. Do you agree with Eversource’s assessment of the advantages and disadvantages of**
2 **replacing existing poles with higher structures?**

3 A. Yes.

4 **IV. CONCLUSIONS AND RECOMMENDATIONS**

5 **Q. Please summarize your recommendation to the Department.**

6 A. I am recommending the Department support the Company’s request for an exemption of
7 the town’s zoning requirement because my review has found that Eversource proposed a
8 rebuild solution in the Town of Bethlehem that optimized cost and environmental impact
9 and represented the only reasonable alternative.

10 **Q. Do you have any additional recommendations for the Commission to consider?**

11 A. No.

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

13 A. Yes, it does.