

THE STATE OF NEW HAMPSHIRE
BEFORE THE
PUBLIC UTILITIES COMMISSION

PETITION OF PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE D/B/A
EVERSOURCE ENERGY FOR LICENSES TO CONSTRUCT AND MAINTAIN
ELECTRIC LINES OVER AND ACROSS THE MERRIMACK RIVER IN THE TOWNS
OF MERRIMACK AND LITCHFIELD, NEW HAMPSHIRE, AND OVER AND ACROSS
LAND OWNED BY THE STATE IN THE TOWN OF LITCHFIELD, NEW HAMPSHIRE.

TO THE PUBLIC UTILITIES COMMISSION:

Public Service Company of New Hampshire d/b/a Eversource Energy ("Eversource"), a public utility engaged in the transmission, distribution and sale of electricity in the State of New Hampshire, hereby petitions the Public Utilities Commission ("Commission"), pursuant to RSA 371:17, for licenses to construct and maintain electric lines over and across the public waters of the Merrimack River in the Towns of Merrimack and Litchfield, New Hampshire, and over and across certain land owned by the State of New Hampshire ("State") in Litchfield, New Hampshire, and in support of this petition states as follows:

1. In order to meet the reasonable requirements of service to the public, Eversource has previously constructed and currently operates and maintains an overhead 115 kV electric transmission line, designated as the Eversource H123 Line, over and across the Merrimack River in the Towns of Merrimack and Litchfield, and over and across a parcel of land owned by the State in the Town of Litchfield. The State's land parcel consists of approximately 99.5 acres situated off Carlisle Drive in Litchfield, and is designated as Map 13, Lot 166 on the Town of Litchfield's tax records. The H123 Line crossing of the Merrimack River has been previously licensed by the Commission under Order No. 12,219, dated March 12, 1976, issued in Docket DE 76-22. The H123 Line crossing of the State's land parcel has not been previously licensed, as this parcel was in private ownership when the H123 Line was originally constructed, and no Commission license was required.¹

2. Eversource is commencing a project to modify or rebuild a number of the structures on its existing H123 Line, which will impact the crossing locations which are the subject of this petition. Certain of the existing H123 Line wood transmission line structures are approximately 52 years old and have been subject to environmental damage, and require replacement or modification for the line to continue to function safely and reliably. This structure replacement and repair project is part of a reliability project necessary for the H123 Line to continue to meet current as well as future projected electricity demands. No conductor, shield wire or neutral wire

¹ The State of New Hampshire, acting through the Department of Environmental Services, acquired the subject parcel by deed from the Litchfield School District in 1998 (Hillsborough County Registry of Deeds Book 6001, Page 230), and the acquisition was subject to the existing Eversource right of way on the property. The structure replacements of the H123 Line crossing of the State's land will be newly licensed under this petition.

will be replaced as part of this project; instead, existing conductors and wires will be transferred to the new, replaced structures.

3. The attached Exhibit #1 - Overview Map, dated November 9, 2018, revised through January 11, 2019, shows the general location of the H123 Line crossings of the Merrimack River and the State land parcel to be rebuilt as part of Eversource's project. The design and proposed construction of the replacement crossings for the H123 Line over the Merrimack River, and over the State's land parcel, will be in accordance with the National Electrical Safety Code (NESC), as shown on the Eversource Plan and Profile Drawing for the Merrimack River crossing, attached as Exhibit #2, and the Eversource Plan and Profile Drawing for the State land crossing, attached as Exhibit #3.

4. Wire and structure specifications for the Merrimack River crossing are as follows:

I. Wire:

- i. Shield Wire: 7#8 Alumoweld
- ii. Transmission Wire: 795 kcmil ACSR 36/1
- iii. ADSS Wire: ADSS 72 Fiber

II. Structure Types and Pole Heights: From north to south

1. Str 155: ADS-MOD 3-Pole, 3 - 75' OAL (65.5' AGH)
2. Str 156: ADS-MOD 3-Pole, 3-70' OAL (61' AGH)

5. Wire and structure specifications for the State land crossing are as follows:

I. Wire:

1. Shield Wire: 7#8 Alumoweld
2. Transmission Wire: 795 kcmil ACSR 36/1 (COOT)
3. ADSS Wire: ADSS 72 Fiber

II. Structure Types and Pole Heights: From north to south

1. Str 181: CL H1 LD Steel 2-Pole, 2-65' OAL (56.5' AGH)
2. Str 182: CL H1 LD Steel 2-Pole, 2-60' OAL (52.0' AGH)
3. Str 183: CL H1 LD Steel 2-Pole, 2-60' OAL (52.0' AGH)
4. Str 184: CL H1 LD Steel 2-Pole, 2-60' OAL (52.0' AGH)

6. The location of the structures creates the following crossing spans:

- a. Merrimack River: 704.83 feet (structure to structure)
- b. State of New Hampshire Land Crossing²:

² While all four structures associated with the State land crossing are being rebuilt (Structures 181, 182, 183 & 184), only one complete span (between 182 & 183) is within the State land parcel (866.70 ft.). The other two spans (between 181 & 182, and 183 & 184) cross the State land parcel only partially, with aerial conductors and wires only. See Exhibit #3.

- Structure Span (ft): 3 spans @ 1,211.87
- State Land Span (ft): 866.70

7. All conductors and wires have been drawn in Exhibits #2 and #3 to show the maximum sag conditions in reference to the water, and to the State land, respectively.

8. Eversource will maintain and operate the clearance of the crossing over the Merrimack River at a height no less than is required by the 2017 National Electrical Safety Code (NESC, Table 232-1). The Merrimack River crossing requires 18.6 feet for 115kV open supply conductors over water areas not suitable for sail boating. The minimum height over the River is depicted on the attached Exhibit #2.

9. For the Merrimack River crossing, the 100 year flood level was established based upon a combination of field survey, and FEMA flood zone maps for that area (Zone X, effective date: September 25, 2009). This elevation is based on the North American Vertical Datum of 1988 (NAVD 88). For the purposes of calculating clearance, the 100-year flood elevation was used, as it was readily available. This is higher than the 10-year flood elevation required by NESC and provides a conservative clearance requirement.

10. Eversource will maintain and operate the clearances of the crossing over the State land locations at a height no less than is required by the 2017 National Electrical Safety Code (NESC, Table 232-1), which is 9.5 feet to ground for insulated communication cable and 20.1 feet to ground for 115kV open supply conductors over any vehicle/horse accessible areas. The minimum height over the State land is depicted on the attached Exhibit #3.

11. A New Hampshire Department of Environmental Services (NHDES) Shoreland Permit by Notification application is required for construction activities in the vicinity of the Merrimack River. The permit by notification was approved by NHDES on November 26, 2018 (NHDES File #2018-03547).

12. The U.S. Army Corps of Engineers (ACOE) regulates the subject portion of the Merrimack River as a federal-designated navigable water. Eversource previously consulted with the ACOE and was advised by the ACOE that, when wire and cable clearances will increase over those presently in place, no ACOE permit modifications are required. The rebuild of Structures 155 and 156 for the Merrimack River crossing will entail raising the H123 Line within the existing Eversource right of way corridor, so a permit modification by the ACOE will not be required.

13. A NHDES Standard Wetlands Permit is required for construction activities which involve the alteration of nontidal wetlands, nontidal surface waters, and banks adjacent to nontidal surface waters in excess of 20,000 square feet in the aggregate, and is applicable to both the

Merrimack River crossing and the State land crossing. A permit application was submitted on November 15, 2018 and accepted by NHDES on November 16, 2018 (see NHDES File # 2018-03478). In addition, a copy of the NDHES Wetlands Permit application was sent to the ACOE for review on November 15, 2018.

14. It is not anticipated that abutters on either side of the Merrimack River crossing, and on either side of the State land crossing, will be affected by this petition, as the H123 Line is an existing line, and the crossing structures in the case of each crossing are being replaced and rebuilt within Eversource's existing utility easements. As explained in footnote 1 herein, the State's land parcel was acquired by the State subject to the Eversource right of way easement, and no new or additional real property rights are required to replace the structures within the State's parcel.

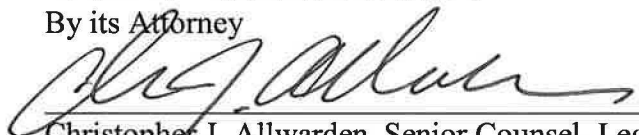
15. Eversource submits that the licenses petitioned for herein may be exercised without substantially affecting the rights of the public in the public waters of the Merrimack River, or in the State's land parcel. Minimum safe clearances above the water and land surfaces will be maintained at all times. The use and enjoyment by the public of the Merrimack River and the State's land parcel will not be diminished in any material respect as a result of the replacement of the overhead line crossings.

WHEREFORE, Eversource respectfully requests that the Commission:

1. Find that the licenses petitioned for herein may be exercised without substantially affecting the public rights in the public waters and State land which are the subject of this petition;
2. Grant Eversource licenses to construct and maintain electric lines over and across the Merrimack River and State land as identified and described in this petition; and
3. Issue an Order Nisi and orders for its publication.

Dated at Manchester, New Hampshire, this 8th day of February, 2019.

Respectfully submitted,
PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
D/B/A EVERSOURCE ENERGY
By its Attorney



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