

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 ASHUELOT RIVER, AND OVER AND ACROSS LAND  
OWNED BY THE STATE OF NEW HAMPSHIRE, IN THE TOWN OF WINCHESTER, 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 Ashuelot River, and over and across certain land owned by the State of New Hampshire ("State") in the Town of Winchester, 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 345 kV electrical transmission line, designated as the Eversource 381 Line, over and across the Ashuelot River, and over and across a parcel of land owned by the State, both situated in the Town of Winchester, New Hampshire. The existing 381 Line crossing of the Ashuelot River in the subject location was previously licensed by the Commission under Order No. 9885, dated February 24, 1970, issued in Docket D-E5812. The State's land parcel consists of a former Boston and Maine Corporation railroad bed situated south of Ashuelot Main Street in Winchester, is designated as Tax Map 05 Lot 0RR on the Town of Winchester's tax records, and is currently administered as part of the Ashuelot Recreational Rail Trail by the Bureau of Trails of the State Division of Parks & Recreation. The 381 Line crossing of the State's land parcel has not been previously licensed, as this parcel was in private railroad ownership when the 381 Line was originally constructed in 1970, and no Commission license was then required.<sup>1</sup>

2. Eversource is commencing a project to modify or rebuild several of the structures on its existing 381 Transmission Line, which will impact the public water crossing and State land crossing which are the subject of this petition. Both the River and the State land parcel are within the same crossing span of the 381 Line in this location. Upon field investigation, it was determined that one (1) existing wood structure (Str. 31) for this crossing must be replaced to ensure the safety

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<sup>1</sup> The State of New Hampshire acquired the subject railbed, then designated as the Ashuelot Branch, by deed from the Boston and Maine Corporation in 1995 (Cheshire County Registry of Deeds Book 1530, Page 0715), and the acquisition was subject to all agreements or rights in others. At the time of the transfer to the State, Eversource was the holder of a Pole and Wire Agreement from the B&M RR, granted in 1970, for its 345 kV line crossing over the railbed. The 381 Line overhead crossing of the State's land will be newly licensed under this petition.

and reliability of the line. This structure replacement and repair project is part of Eversource's ongoing maintenance projects to meet current as well as future projected electricity demands. No conductor, shield wire or neutral wire will be replaced as part of this project; instead, existing conductors and wires will be transferred to the new structure (Str.31), which will be a steel structure replacement of the wood structure.

3. Field investigation also determined that, in 2018, Eversource had already completed one (1) wood structure replacement (Str. 30) along the existing 381 Line, which impacted the public water crossing and State land crossing which are the subject of this petition. Due to inadvertence or oversight, a crossing petition was not submitted prior to this 2018 work being completed. Consequently, a portion of this petition is to license this prior structure replacement after the fact. No conductor, shield wire or neutral wire was replaced as part of the 2018 structure replacement; instead, existing conductors and wires were transferred to the new structure (Str. 30), which was a steel structure replacement of the wood structure.

4. The attached Exhibit #1 – Overview Map, shows the general location of the 381 Line crossing of the Ashuelot 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 381 Line over the Ashuelot 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 Ashuelot River and State land crossings, attached as Exhibit #2.

5. Wire and structure specifications for both the State land and Ashuelot River crossings are as follows:

- I. Wire:
  - i. Shield Wire: 7#8 Alumoweld
  - ii. Transmission Wire: 850.8 kcmil ACSR 45/7
  - iii. OPGW Wire 0.637" diameter
- II. Structure Types and Pole Heights: From north to south
  - i. Str 30: A 2-Pole, 2-80' OAL (70' AGH) (Existing)
  - ii. Str.31: A 2-Pole, 2-100' OAL (88' AGH)

6. The location of the structures creates the following crossing spans:
- a. Ashuelot River: 599.12 feet (structure to structure)
  - b. State of New Hampshire Land Crossing: Tax Map 05, Lot 0RR
    - i. Structure Span (ft): 1 span @ 599.12
    - ii. State Land Span (ft): 119.16

7. All conductors and wires have been drawn in Exhibit #2 to show the maximum sag conditions in reference to the waters of the Ashuelot River, and to the State land, respectively.

8. Eversource will maintain and operate the clearances of the crossings over the Ashuelot River and the State land location at a height no less than what is required by the 2017 National Electrical Safety Code (NESC, Table 232-1) and Eversource requirements, which is 33.2 feet to ground for 345 kV open supply conductors over railroad areas, and for the Ashuelot River,

41.2 feet to ground for 345 kV open supply conductors over waters not suitable for sail boating. The minimum height over the Ashuelot River is depicted on the attached Exhibit #2, which shows the lowest conductor sag point, with the River at 100 year flood elevation, at a clearance of 105.4 feet. The minimum height over the State land railroad bed is also depicted on the attached Exhibit #2, which shows the lowest conductor sag point at a clearance of 76.1 feet.

9. For the Ashuelot 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 and Zone AE, effective date: May 23, 2006). 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. A New Hampshire Department of Environmental Services (NHDES) State Wetland Permit is required for construction activities near the Ashuelot River. The permit application was amended in September 2018 and approved by NHDES on December 5, 2018 (NHDES File # 2018-00282).

11. The U.S. Army Corps of Engineers (ACOE) does not regulate the subject portion of the Ashuelot River as a navigable water. As a result, a crossing permit from the ACOE is not required.

12. It is not anticipated that abutters on either side of the Ashuelot River crossing and the State land crossing will be affected by this petition, as the 381 Line is an existing line, the crossing structures are existing, and Str. 31 is 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 Eversource crossing rights under its Pole and Wire Agreement with the Railroad, and Eversource is working with the State's Bureau of Trails to formalize the continuance of these crossing rights as is commonly done in these situations.

13. 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 Ashuelot 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 Ashuelot 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 crossing.

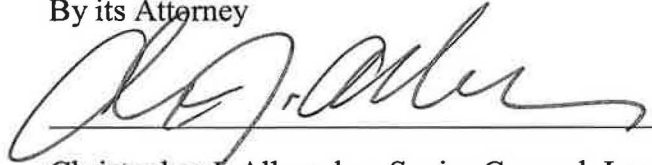
WHEREFORE, Eversource respectfully requests that the Commission:

1. Find that the license petitioned for herein may be exercised without substantially affecting the public rights in the public waters and the State lands which are the subject of this petition;
2. Grant Eversource licenses to construct and maintain electric lines over and across the Ashuelot 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 23<sup>rd</sup> day of MAY, 2019.

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

A handwritten signature in black ink, appearing to read "C. Allwarden", written over a horizontal line.

Christopher J. Allwarden, Senior Counsel, Legal Dept.  
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