

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

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

**DOCKET No. DE 20-\_\_\_\_\_**

**PETITION OF PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE D/B/A  
EVERSOURCE ENERGY FOR LICENSE TO CONSTRUCT AND MAINTAIN  
ELECTRIC LINES OVER AND ACROSS THE ISINGLASS RIVER IN STRAFFORD  
AND STATE OWNED LAND  
IN ROCHESTER AND RAYMOND, NEW HAMPSHIRE**

Pursuant to RSA 371:17, Public Service Company of New Hampshire d/b/a Eversource Energy (“Eversource” or “the Company”), 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”), for a license to construct and maintain electric lines over and across certain public waters in the Town of Strafford and certain State owned land in the Towns of Rochester and Raymond. In support of this petition Eversource states as follows:

1. In order to meet the requirements for reasonable service to the public, Eversource has previously constructed and currently operates and maintains an overhead 345 kV electrical transmission line, designated as the Eversource 391 Line, over and across the public waters of the Isinglass River in Strafford and State owned lands in Rochester, New Hampshire comprising a portion of the former B&M Railroad right-of-way and State owned lands in Raymond, comprising a portion of the Rockingham Recreational Trail. B&M Railroad previously granted a license for the Rochester crossing in file FDA 334 and for the Raymond crossing location in file FDA 332, however, these three crossings have not been previously licensed by the PUC, but will be fully licensed pursuant to this petition. The locations of the public water crossing and two State owned land spans which are the subject of this petition are depicted on the Overview Map attached hereto as Exhibit #1.

2. Eversource is commencing a project to replace a number of structures on its existing 391 Line, which will require transfer of the existing conductors and static wire at the Isinglass River crossings and two State land crossing spans which are the subject of this petition. The six structures depicted on Exhibits 2, 3 & 4 are approximately 50 years old and have been subjected to environmental damage. Therefore, they require replacement to continue to function safely and reliability. No wires will be replaced as part of this project; instead, existing wires will be transferred to the new structures, which will be a weathered steel replacement of the existing wood structures.

3. The design and proposed construction of the replacement crossings for the 391 Line over the Isinglass River and State lands are in accordance with the National Electrical Safety Code (NESC) and are depicted on the Eversource Plan and Profile Drawings, attached as Exhibits 2, 3 & 4. The replacement structures will be constructed within 10' of the original wood structures so as not to disturb the original structures' foundation while the conductors are being transferred. The overall length (OAL) of all six structures is increasing nominally as a result of the change from wood to steel: Structure 21 is increasing from 90' to 95'; Structure 93 (two-pole with different OAL for each pole owing to its location on a knoll) is increasing from 90-95' and from to 95-100'; Structure 242 is increasing from 70 to 75'; and Structure 243 is increasing from 80 to 100'. The greater increase for Structure 243 is the result of the topography wherein structure 243 is situated at a low point between structures 242 and 244 such that the increased height of the replacement structure benefits safety and reliability. Structure 22, which is opposite structure 21 at the former B&M ROW crossing (See Exhibit 2) is not being replaced because it currently has a structure rating of A based on the latest field inspection. Structure 92, which is opposite structure 91 at the Isinglass River crossing (See Exhibit 3), was replaced in 2018 but a license was not obtained as a result of an oversight arising from change in company personnel.

4. Wire and structure specification for the Isinglass River and State land crossings are as follows:

I. Wire:

- i. Static wire: 7#8 alumoweld
- ii. Transmission Wire: 850.8 kmil ACSR 45/7

- II. Structure Types and Pole Heights: From east to west:
  - i. Str. 21: 2 pole steel, 95' OAL, 83.5' Aboveground Height [AGH])
  - ii. Str. 22: 2 pole steel, 95 OAL, 83.5' AGH
  - iii. Str. 92: 2 pole steel, 100' OAL, 88' AGH
  - iv. Str. 93: 2 pole steel, 95-100' OAL, 85.5' AGH
  - v. Str. 242: 2 pole steel, 75' OAL, 85.5' AGH
  - vi. Str. 243: 2 pole steel, 100' OAL, 88' AGH

- 5. The location of the structures creates the following crossing span:
  - I. Former B&M Railroad ROW: Rochester (Exhibit 2)
    - i. Structures: 21 to 22
    - ii. Structure Span (ft): 731
    - iii. State Land Span (ft): 75
  - II. Isinglass River: Strafford (Exhibit 3)
    - i. Structures: 92 to 93
    - ii. Structure Span (ft): 954
    - iii. Public Land Span (ft): 75
  - III. Rockingham Recreational Trail: Raymond (Exhibit 4)
    - i. Structures: 242 to 243
    - ii. Structure Span (ft): 656
    - iii. State Land Span (ft): 70

6. All conductors and wires have been drawn on Exhibits 2, 3 & 4 to show the minimum clearance at maximum sag conditions in reference to the water body and State land spans.

7. Eversource will maintain and operate the clearances of the crossings over the Isinglass River and State land crossings at a height no less than what is required by the 2017 National Electrical Safety Code (NESC, Table 232-1). The Isinglass River crossing requires at least 23.3 feet for 345 kV open supply conductors over water not suitable for sail boating. The State land crossings require at least 25.42 feet to ground for land used by off-road vehicles under 345 kV open supply conductors. The actual minimum height over the Isinglass River and State land crossing are depicted on the attached Exhibits 2, 3 & 4 and exceeds the minimum requirements.

8. For the Isinglass River crossing, the 100-year flood level was established based upon FEMA flood zone maps for that area, effective date: May 17, 2005. This elevation is based on the national Geodetic Vertical Datum of 1988 (NAVD 1988). 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.

9. A New Hampshire Department of Environmental Services statutory permit by notification (SPN) is required for construction access and work activities which involve the temporary minor alteration of nontidal wetlands, nontidal surface waters, and banks adjacent to nontidal surface waters and is applicable to the public water crossings. SPN's have been obtained in: Strafford (2020-00035); Rochester (2020-00036); and Raymond (2020-00037).

10. The U.S. Army Corps of Engineers (ACOE) does not regulate the subject portions of Isinglass River as navigable waters. As a result, a crossing permit from the ACOE is not required.

11. It was not anticipated that abutters on either side of the Isinglass River or the State land crossings would be affected by the proposed structure replacements, as the 391 Line is an existing line, and the crossing structures to be replaced are within Eversource's existing utility easements.

12. Eversource submits that the license petitioned for herein may be exercised without substantially affecting the rights of the public in the public waters of Isinglass River or in the State's land. Minimum safe clearances above the water and land surfaces shall be maintained at all times. The use and enjoyment by the public of the Isinglass River and the State's land will not be diminished in any material respect as a result of the proposed structure replacements.

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 State lands which are the subject of this petition;

2. Grant Eversource a license to construct and maintain electric lines over and across the public waters and State land as identified and described in this petition;
3. Authorize Eversource to submit any future proposed alteration(s) to the amended licenses granted herein at least 60 days prior to undertaking any such alteration(s); and
4. Issue an order *Nisi* and orders for its publication.

Dated at Manchester, New Hampshire this 28<sup>th</sup> day of January, 2020.

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



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