

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

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

**Docket No. DE 19-\_\_\_\_\_**

**PETITION OF PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE  
D/B/A EVERSOURCE ENERGY FOR LICENSE TO CONSTRUCT AND MAINTAIN  
ELECTRIC LINES OVER AND ACROSS FRANKLIN PIERCE LAKE  
IN THE TOWN OF ANTRIM, 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 waters owned by the State of New Hampshire (“State”) in the Town of Antrim, New Hampshire. In support of this petition Eversource 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 electrical transmission line, designated as the Eversource X104 Line, over and across Franklin Pierce Lake, as shown in Exhibit 1. This Franklin Pierce Lake crossing was not previously licensed by the Commission.
2. Eversource is commencing a project to modify or rebuild a number of the structures on its existing X104 Transmission Line, which will impact the crossing which is the subject of this petition. Certain of the X104 Line wood transmission structures are approximately 65 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 for the X104 Line to continue 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 wire will be transferred to the new structures (Str. 26 and 27), which will be a steel structure replacement of the wood structures. Additionally, Str. 26.5 will be removed.
3. The attached Exhibit 1, dated July 31, 2019, revised through August 2, 2019, shows the general location of the X104 Line crossing of Franklin Pierce Lake to be rebuilt as part of Eversource’s project. The design and proposed construction of the replacement crossings for the X104 line over Franklin Pierce Lake will be in accordance with the National Electric Safety Code (NESC), as shown on the Eversource Plan and Profile Drawing for the crossing of Franklin Pierce Lake (see Attached Exhibit 2).

4. Wire and structure specifications for Franklin Pierce Lake crossing are as follows:

I. Wire:

- i. Shield Wire: 3#6 Copperweld
- ii. Transmission Wire: 336.4 kcmil ACSR 26/7
- iii. ADSS: 0.643" diameter

II. Structure Types and Pole Heights: From west to east

- i. Str 26: A 1-Pole, 100' OAL (84' AGH)
- ii. Str 27: A 3-Pole, 1-80', 2-75' OAL (64.5' AGH)

5. The location of the structures creates the following crossing span: Franklin Pierce Lake: 556.86 feet (Str. 26 to Str. 27).

6. All conductors and wires have been drawn in Exhibit 2 to show the maximum sag conditions in reference to the state waters.

7. Eversource will maintain and operate the clearances of the wire crossing over Franklin Pierce Lake at a height no less than what is required by the 2017 National Electrical Safety Code (NESC, Table 232-1). Franklin Pierce Lake crossing requires a minimum 20.6 feet for 115kV open supply conductors over water areas suitable for sail boating. The minimum height over the Lake is depicted on the attached Exhibit 2.

8. For the Franklin Pierce Lake crossing, the 100-year flood level was established based upon FEMA flood zone maps for that area (Zone A, 769.0 feet, 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.

9. A New Hampshire Department of Environmental Services (NHDES) Utility Maintenance Notification is required for construction access and work activities which involve the temporary alteration of nontidal wetlands, nontidal surface waters, and banks adjacent to nontidal surface waters under one (1) acre and is applicable to the State land crossings. A permit application will be submitted for the Town of Antrim.

10. A New Hampshire Division of Environmental Services (NHDES) Shoreland Permit by Notification application is required for construction activities in the vicinity of Franklin Pierce Lake. A NHDES Shoreland Permit by Notification will be submitted as part of this project.

11. The U.S. Army Corps of Engineers (ACOE) does not regulate the subject portion of Franklin Pierce Lake 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 Franklin Pierce Lake crossing will be affected by this petition, as the X104 Line is an existing line, and the crossing structures are being replaced and rebuilt within Eversource's existing utility easements

13. Eversource submits that the license petitioned for herein may be exercised without substantially affecting the rights of the public in the public waters of Franklin Pierce Lake. Minimum safe clearances above the water surfaces will be maintained at all times. The use and enjoyment by the public of Franklin Pierce Lake 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 which are the subject of this petition;
2. Grant Eversource a license to construct and maintain electric lines over and across the State's land parcel as identified and described in this petition; and
3. Issue an Order Nisi and orders for its publication.

Dated at Manchester, New Hampshire, this 7th day of August, 2019

Respectfully submitted,

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

By its Attorney



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