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

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 SQUAMSCOTT RIVER IN THE TOWNS OF STRATHAM AND EXETER, 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 a license to construct and maintain electric lines over the public waters of the Squamscott River in the Towns of Stratham and Exeter, New Hampshire and in support of this petition states as follows:

- 1. In order to meet the reasonable requirements of service to the public, the Eversource has previously constructed and currently operates and maintains an overhead 115 kV electric transmission line, designated as the Eversource A126 Line, over and across the Squamscott River in the Towns of Exeter and Stratham, New Hampshire. The thread of the Squamscott River in this location is the boundary line between these two Towns. The A126 Line was originally constructed in 1955, and is comprised primarily of wooden transmission structures. The A126 Line crossing of the Squamscott River was previously licensed by the Commission under Order No. 6668, dated August 31, 1955, issued in Docket D-E3442.<sup>1</sup>
- 2. Eversource is commencing a project to replace deteriorating existing wooden pole structures with steel structures on portions of the existing A126 Line. This project will impact the crossing location and crossing structures which are the subject of this petition. Certain of the existing A126 Line wood transmission line structures are approximately 44 years old, have been subject to environmental damage and now require replacement or modification with new steel structures 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 A126 Line to continue to safely 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, replacement steel structures. Both of the existing Squamscott River wooden A126 Line crossing structures will be replaced with new steel structures.
- 3. The attached Exhibit #1 Overview Map, shows the general location of the A126 Line crossing of the Squamscott River in Exeter and Stratham as part of Eversource's project. The design and proposed construction of the replacement crossing for the A126 Line over the Squamscott River will be in accordance with the National Electrical Safety Code (NESC), as shown on the Eversource Plan and Profile Drawing for the Squamscott River crossing, attached as Exhibit #2.

<sup>&</sup>lt;sup>1</sup> Subsequently, in 1975, Eversource replaced the A126 wood poles at this crossing location with new wooden poles, which are the poles existing today. Due to inadvertence or oversight, Eversource did not at that time make any filing with the Commission relative to that change of the crossing structures, but it is believed that this work was only to replace those poles in kind, without varying the crossing characteristics of the A126 Line. Eversource will be newly licensing the replacement crossing of the A126 under this petition.

- 4. Wire and structure specifications for the Squamscott River crossing are as follows:
  - a. Wire:
    - i. Shield Wire: 7#8 Alumoweld
    - ii. Transmission Wire: 477 kcmil 26/7 ACSR Hawk
  - b. Structure Types and Pole Heights: From north to south:
    - i. Str 155: 3-Pole ADL-1 CL H1 Steel, 3-75' OAL (65.5' AGH)
    - ii. Str 156: 3-Pole ADS-1 CL H1 Steel, 3-90' OAL (79.0' AGH)
- 5. The location of the structures creates the following Squamscott River crossing span:
  - a. 726.41 linear feet (A126 structure 155 to structure 156)
- 6. All conductors have been drawn in Exhibit 2 to show the maximum sag conditions in reference to the waters of the Squamscott River.
- 7. Eversource will maintain and operate the clearance of the wire crossing over the Squamscott River at a height no less than is required by the 2017 National Electrical Safety Code (NESC, Table 232-1). The Squamscott River crossing requires a minimum of 18.6 feet for 115 kV open supply conductors over water areas not suitable for sail boating. The minimum height over the Squamscott River is depicted on the attached profile drawing (Exhibit #2), which shows the lowest conductor sag point with the River at 100-year flood elevation, at a clearance of 41.8 feet.
- 8. For the Squamscott River crossing, the 100-year flood level was established based upon FEMA flood zone maps for the crossing area (Zone AE, effective date: May 17, 2005). This elevation is based on the national Geodetic Vertical Datum of 1988 (NAVD88). 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 Division of Environmental Services (NHDES) Shoreland Permit by Notification application is required for construction activities in the vicinity of the Squamscott River. A NHDES Shoreland Permit by Notification will be submitted as part of this project.
- 10. A NHDES Standard Dredge and Fill Wetland Permit is required for the portion of the project in Stratham and a NHDES Utility Maintenance Notification Permit is required for the portion of the project in Exeter. Both NHDES wetland permits will be submitted as part of this project.
- 11. It is not anticipated that abutters on either side of the Squamscott River crossing will be affected by this petition, as the A126 Line is an existing line, and the crossing structures are being replaced and rebuilt within Eversource's existing utility corridor. The existing utility corridor on each side of the Squamscott River, and the location of each of the crossing structures being replaced, is comprised of existing easements owned by Eversource to operate and maintain transmission lines. There is also an active Boston and Maine Corporation railroad bed on the westerly side of the River crossing (Exeter), situated between the River and Structure 156, for which Eversource has an existing crossing license agreement with the Boston and Maine for its A126 Line.

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 the Squamscott River. Minimum safe line clearances above the River surfaces and affected shorelines will be maintained at all times. The use and enjoyment of the public of the River will not be diminished in any material respect as a result 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 the Company a license to construct and maintain electric lines over and across the Squamscott River as identified and described in this petition; and
- 3. Issue an Order Nisi and orders for its publication.

Dated at Manchester, New Hampshire this 14th day of May, 2019.

Respectfully submitted,

PUBLIC SERVICE COMPANY OF

NEW HAMPSHIRE DBA

**EVERSOURCE ENERGY** 

By Its Attorney

Christopher J. Allwarden

Senior Counsel, Legal Department

Eversource Energy Park

780 North Commercial Street

Manchester, NH 03101

(603) 634-2459