## 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 UNDER AND ACROSS LAKE WINNIPESAUKEE TO LOCKES ISLAND IN THE TOWN OF GILFORD, 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 generation, 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 under and across the public waters of Lake Winnipesaukee to Lockes Island in the Town of Gilford, 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 a submarine electric line under and across Lake Winnipesaukee, from Varney Point on the mainland, northeast to Lockes Island in Gilford, New Hampshire, to serve its customers on Lockes Island<sup>1</sup>. This is a 4,160 volt circuit (4.16 kV), designated by Eversource as the Feeder 11W1 Line at this location.<sup>2</sup> Due to the age and condition of the existing underwater cable, it is necessary for Eversource to replace this circuit to ensure the continued safety and reliability of electric service to Lockes Island.
- 2. The attached Exhibit 1 USGS Locus Map shows the general location of the replacement crossing across Lake Winnipesaukee, between Varney Point and Lockes Island. The design and proposed construction of the replacement crossing is shown on the attached Exhibit 1A Lockes Island Cable Replacement plan, and has been designed to meet all applicable requirements of the National Electrical Safety Code (NESC).
- 3. Replacement crossing wire and structure specifications are as follows:
  - a. Feeder 11W1 Line:
    - i. Wire: two (2) single conductor (1/C) #1/0 15kV AL submarine conductors
    - ii. Pole Structures:
      - 1. Varney Point (west): new 45-foot, class 2, single pole wood (P.951/47),
      - 2. Lockes Island (east): existing 40-foot, class 2, single pole (P.953/1)

<sup>&</sup>lt;sup>1</sup> Due to either oversight or the application of navigability or other crossing license criteria at the time of original construction, the existing submarine cable crossing under Lake Winnipesaukee to Lockes Island has not been previously licensed by the Commission. However, the replacement of this crossing will be licensed under this petition.

<sup>&</sup>lt;sup>2</sup> An Eversource submarine electric cable crossing to nearby Welch Island, which is the subject of a crossing petition filed by Eversource on August 1, 2108, is also designated as the Feeder 11W1 Line, because both Island crossings (Lockes and Welch) are fed by the same Eversource 11W1 circuit on the mainland.

# iii. Structure Types:

- 1. Varney Point (west): (2) 40T fused cutout and (2) risers,
- 2. Lockes Island (east): (2) solid blade cutout and (2) risers
- 4. The location of the structures creates the following crossing span:
  - a. Feeder 11W1 Line: approximately 1,150 feet
- 5. Eversource will construct, maintain and operate the crossing in accordance with the 2012 NESC.
- 6. Each new underwater cable will be a single conductor #1/0 jacketed submarine cable of approximate diameter of 1.79"; a cross-section drawing of the submarine cable to be used is attached as Exhibit 2A. The cable run from the Varney Point shoreline to Lockes Island will be single phase primary voltage 4.16 kV. Beginning at the Varney Point shoreline, the cable will be encased in conduit from the new riser, which will be located on replacement structure P.951/47 near Varney Point Road, until a depth of approximately 10 feet below the water surface is reached. From there, the cable will be laid on the Lake bed, to Lockes Island. Upon reaching a depth of approximately 10 feet below the water surface, the cable will be encased in conduit to the new riser on the existing structure P.953/1, located on the Lockes Island shoreline. A drawing showing the typical conduit and riser installation for the pole structures involved in this crossing is attached as Exhibit 2B. Horizontal directional drilling (HDD) installation methods will be used on each shoreline to achieve the designated conduit depths.
- 7. The existing Feeder 11W1 Line cable will be abandoned in place, and two (2) new 15kV AL submarine conductors, approximately 1,150 feet, will be installed to replace it. On Varney Point, two (2) new 40T fused cutouts, and two (2) new risers will be installed, and existing Pole P.951/47 will be removed and replaced in the current location. On Lockes Island, two (2) new N.O. solid blade cutouts and two (2) new risers will be installed on existing structure P.953/1. The existing 40T fused cutout and riser structure on Varney Point, and the existing N.C. solid blade cutout and riser structure on Lockes Island P.953/1, will be removed.
- 8. It is not anticipated that the property owners on either shoreline of the Lake will be affected, as this is a replacement of an existing crossing. Eversource owns and is acquiring additional permanent easement rights on the Varney Point mainland, and owns permanent easement rights on Lockes Island, in the locations where the poles and riser structures for this replacement crossing are located.
- 9. As HDD installation methods will be used at each shoreline location, there will be no wetlands impacts and no New Hampshire Department of Environmental Services (NHDES) wetlands permits are required. A Shoreland Permit by Notification (PBN) is required for each shoreline for this crossing project, and each required Shoreland PBN has been filed and accepted by NHDES.

10. Eversource submits that the license petitioned for herein may be exercised without substantially affecting the rights of the public in the public waters of Lake Winnipesaukee. The use and enjoyment by the public of the Lake will not be diminished in any material respect as a result of the submarine 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 maintain electric lines under and across the public waters as identified and described in this petition; and
- 3. Issue an Order Nisi and orders for its publication.

Dated at Manchester, New Hampshire this 2nd day of August, 2018.

Respectfully submitted,

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE D/B/A EVERSOURCE

**ENERGY** 

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