

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 WELCH 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 Winnepesaukee to Welch 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 Winnepesaukee, from Belknap Point on the mainland, northeast to Welch Island in Gilford, New Hampshire, to serve its customers on Welch Island. This is a 4,160 volt circuit (4.16 kV) designated by Eversource as the Feeder 11W1 Line at this location.¹ 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 Welch Island. The existing Feeder 11W1 Line crossing to Welch Island in its present location was previously licensed by the Commission under Order #7535-2, dated August 11, 1960, issued in Docket #D-E3861. The replacement of the crossing will be newly licensed pursuant to this petition.
2. The attached Exhibit 1 – USGS Locus Map shows the general location of the replacement crossing across Lake Winnepesaukee, between Belknap Point and Welch Island. The design and proposed construction of the replacement crossing is shown on the attached Exhibit 1A – Welch 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. Belknap Point (west): 50-foot, class 2, single pole wood (No. P.90/185-1),

¹ An Eversource submarine electric cable crossing to nearby Lockes Island, which is the subject of a crossing petition to be filed by Eversource on near or even date, 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.

2. Welch Island (east): 40-foot, class 2, single pole, wood (No. P.957/1)
 - iii. Structure Type:
 1. Belknap Point (west): (2) 65T fused cutout and (2) risers,
 2. Welch 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 5,440 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 Belknap Point shoreline to Welch Island will be single phase primary voltage 4.16 kV. Beginning at the Belknap point shoreline, the cable will be encased in conduit from the new riser, which will be located on replacement structure P.90/185-1 near Belknap 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 Welch 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 replacement structure P.957/1, located on the Welch 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 the Belknap Point shoreline to achieve the designated conduit depth, while conventional trenching methods will be used on the Welch Island shoreline.
7. The existing Feeder 11W1 Line cable will be abandoned in place, and two (2) new 15kV AL submarine conductors, approximately 5,440 feet, will be installed to replace it. On Belknap Point, a new, replacement utility pole (No. P.90/185-1), two (2) new 65T fused cutouts, and two (2) new risers will be installed. On Welch Island, a new, replacement utility pole (No. P.957/1), two (2) new solid blade cutouts, and two (2) new risers will be installed. The existing 65T fused cutout, utility pole (No. P.90/185-1) and riser structure on Belknap Point will be removed. The existing solid blade cutout and riser structure on Welch Island 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 has a Utility License from the Town of Gilford for utility pole riser structure No. P.90/185-1 and associated crossing facilities on the Belknap Point mainland, and owns permanent easement rights on Welch Island in the location of the riser structure pole and associated crossing facilities for this replacement crossing.
9. As HDD installation methods will be used at the Belknap Point shoreline location, there will be no wetlands impacts and no New Hampshire Department of Environmental Services (NHDES) wetlands permit is required in this location. The trenching installation on the Welch Island shoreline requires a NHDES wetlands permit, which was obtained on May 31, 2018 (NHDES

Wetlands and Non-Site Specific Permit 2018-00721). In addition, a Shoreland Permit by Notification (PBN) is required for each shoreline for this crossing project, and each required Shoreland PBN has been filed with 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 Winnepesaukee. 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:

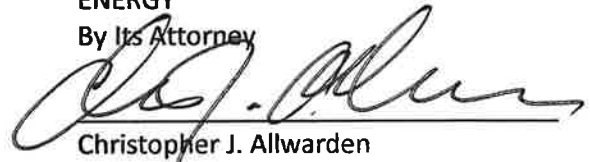
1. Find that the license petitioned for herein may be exercised without substantially affecting public rights in the public waters which are the subject of this petition;
2. Grant Eversource a license to maintain electric lines under and across the public waters as identified and described in this petition; and
3. Issue an Order Nisi and orders for its publication.

Dated at Manchester, New Hampshire this 31st day of July, 2018.

Respectfully submitted,

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

By Its Attorney



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