

**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 PEQUAWKET POND AND SACO RIVER IN THE TOWN OF CONWAY AND  
ACROSS LAND OWNED BY THE STATE OF NEW HAMPSHIRE IN TAMWORTH,  
MADISON AND CONWAY**

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 Conway, New Hampshire and across certain lands owned by the State of New Hampshire (“State”) in Tamworth, Madison and Conway. 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 115 kV electrical transmission line, designated as the Eversource Y138 Line, over and across the public waters of: the Pequawket Pond in the Town of Conway, New Hampshire; and the Saco River in the Town of Conway, New Hampshire; and over and across parcels of land owned by the State in the Towns of Tamworth, Madison, and Conway. The existing crossings of the Saco River and Pequawket Pond were licensed under PUC Order 18,703, dated July 10, 1987. The State land crossings comprise portions of Map 212, Lot 14 in Tamworth, New Hampshire; Map 119, Lot 20 in Madison, New Hampshire; Map 111, Lot 2 in Madison, New Hampshire; Map 203, Lot 15.1 in Madison, New Hampshire; Map 278, Lot 27.1 in Conway, New Hampshire; Map 219, Lot 211 in Conway, New Hampshire; and Map 252, Lot 3.1 in Conway, New Hampshire. These crossings have not been previously licensed due either to oversight, or because the lands involved were in private ownership at the time of the original construction of the existing lines and no crossing license was required, but will be fully licensed pursuant to this petition. The locations of the

two public water crossings and six State land crossing 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 Y138 Transmission Line, which will require transfer of the existing conductors and replacement of the static wire with optical grounding wire (OPGW) at the two public waters crossings and six State land crossing spans which are the subject of this petition. Certain of the Y138 Line wood transmission structures (Strs. 7, 15, 16 & 115) are 26 years old and have been subjected to environmental damage. Therefore, they require replacement to continue to function safely and reliability. Additionally, structure 114 will be replaced to address loading requirements from the OPGW installation as part of this project. The structure replacement and OPGW installation project is part of a reliability project for the Y138 Line to continue to meet current as well as future projected electricity demands. No conductors will be replaced as part of this project; instead, existing conductors will be transferred to the new structures, which will be a steel replacement of the existing wood structures.

3. Eversource replaced wooden structures 98 & 129 in 1998 and structures 99 & 128 between 2017 and 2018 without obtaining a license prior to this work being completed, and as such, this portion of the petition is after-the-fact. No conductor, static wire, or ADSS fiber cable was replaced as part of the project; instead, existing conductors, static wire and ADSS fiber cables were transferred to the new, steel structures.

4. The attached Exhibit #1 – Overview Map, dated December 17, 2019, shows the general location of the Y138 Line crossings of the Pequawket Pond, Saco River, and State owned lands where the existing conductor transfers to replacement structures and where OPGW will be installed as part of Eversource's project. The design and proposed construction of the replacement crossings for the Y138 Line over the Pequawket Pond, Saco River, and State lands will be in accordance with the National Electrical Safety Code (NESC), as shown on the Eversource Plan and Profile Drawings, attached as Exhibit #2 through #8.

5. Wire and structure specification for the State land crossings are as follows:

I. Wire:

- i. Static wire:  $\varnothing$ .457 OPGW 48 Fiber
- ii. Transmission Wire: 795 kcmil ACSR 26/7

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

- i. Str 6: A WT1 Steel, 85' Overall Length (OAL), 74.5' Aboveground Height (AGH)

- ii. Str 7: A SDE Steel, 95' OAL (83.5' AGH)
- iii. Str 15: A WDE1 Steel, 80' OAL (75' AGH)
- iv. Str 16: A SDE Steel, 90' OAL (79.5' AGH)
- v. Str 42: A WDE2 Steel, 85' OAL (74.5' AGH)
- vi. Str 43: A WDE2 Steel, 90' OAL (79' AGH)
- vii. Str 89: A WT1 Steel, 85' OAL (74.5' AGH)
- viii. Str 90: A WT1 Steel, 90' OAL (79' AGH)
- ix. Str 126: A WT1 Steel, 85' OAL (74.5' AGH)
- x. Str 127: A WT1 Steel, 100' OAL (88' AGH)
- xi. Str 128: A ST1 Steel, 95' OAL (79' AGH)
- xii. Str 129: A SDE Steel, 75' OAL (65.5' AGH)

6. Wire and structure specifications for Pequawket Pond and Saco River crossings:

- I. Wire: Pequawket Pond
  - i. Static wire: ø.457 OPGW 48 Fiber
  - ii. Transmission Wire: 795 kcmil ACSR 26/7
- II. Structure Types and Pole Heights: Pequawket Pond
  - i. Str 98: A SDE-1 Steel, 75' OAL (75' AGH)
  - ii. Str 99: A DCST-2 Steel, 100' OAL (84' AGH)
- III. Wire: Saco River
  - i. Static wire: ø.457 OPGW 48 Fiber
  - ii. Transmission Wire: 795 kcmil ACSR 26/7
- IV. Structure Types and Pole Heights: Saco River
  - i. Str 114: A ADL-1 Steel, 60' OAL (52' AGH)
  - ii. Str 115: A SDE Steel, 75' OAL (65.5' AGH)

7. The location of the structures creates the following crossing span:

- I. State land crossing: Tamworth, Map 212, Lot 14 (Exhibit 2)
  - i. Structures: 6 to 7
  - ii. Structure Span (ft): 455
  - iii. Public Land Span (ft): 99
- II. State land crossing: Madison, Map 119, Lot 20 (Exhibit 3)
  - i. Structures: 15 to 16
  - ii. Structure Span (ft): 494.5

- iii. Public Land Span (ft): 138
- III. State land crossing: Madison, Map 11, Lot 2 (Exhibit 4)
  - i. Structures: 42 to 43
  - ii. Structure Span (ft): 453
  - iii. Public Land Span (ft): 109
- IV. State land crossing: Madison, Map 203, Lot 10.1 & Conway Map 278, Lot 27.1 (Exhibit 5)
  - i. Structures: 89 to 90
  - ii. Structure Span (ft): 800.5
  - iii. Public Land Span (ft): 370
- V. Public water crossing: Pequawket Pond, Conway (Exhibit 6)
  - i. Structures: 98 to 99
  - ii. Structure Span (ft): 505
  - iii. Public Water Span (ft): 172
- VI. Public water crossing: Saco River, Conway (Exhibit 7)
  - i. Structures: 114 to 115
  - ii. Structure Span (ft): 699.5
  - iii. Public Water Span (ft): 202
- VII. State land crossing: Conway, Map 252, Lot 3.1 (Exhibit 8)
  - i. Structures: 126 to 128
  - ii. Structure Span (ft): 2,246.7
  - iii. Public Land Span (ft): 154.5
- VIII. State land crossing: Conway, Map 219, Lot 211 (Exhibit 8)
  - i. Structures: 127 to 129
  - ii. Structure Span (ft): 759.4
  - iii. Public Land Span (ft): 106.5

8. All conductors and wires have been drawn in Exhibits 2 through 8 to show the minimum clearance at maximum sag conditions in reference to the water bodies and State land.

9. Eversource will maintain and operate the clearances of the crossings over Pequawket Pond, Saco 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 Pequawket Pond and Saco River crossings require at least 19 feet for 115 kV open supply conductors and 14 feet for both static wire and ADSS fiber cable over water not

suitable for sail boating. The actual minimum height over the two crossing locations are depicted on the attached Exhibit #6 and #7 and exceeds the minimum requirements. The State land crossings require at least 20.6 feet clearance for off-road vehicles for 115 kV open supply conductors. The actual minimum height over the State land crossings are depicted on the attached Exhibit #2 through #5 and #8 and exceeds the minimum requirements.

10. For the Pequawket Pond crossing, the 100-year flood level was established based upon FEMA flood zone maps for that area, effective date: March 19, 2013. For the Saco River crossing, the 100-year flood level was established based upon FEMA flood zone maps for that area, effective date: March 19, 2013. 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.

11. 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. The SPN will be obtained prior to construction.

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

13. It is not anticipated that abutters on either side of the Pequawket Pond, Saco River, or State land crossings will be affected by this petition, as the Y138 Line is an existing line, and the crossing structures are being replaced and rebuilt within Eversource's existing utility easements.

14. Eversource submits that the license petitioned for herein may be exercised without substantially affecting the rights of the public in the public waters of Pequawket Pond or Saco River, or in the State's land. Minimum safe clearances above the water surfaces will be maintained at all times. The use and enjoyment by the public of Pequawket Pond, Saco River, and the State's land 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 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 8th day of January, 2020.

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



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