

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 EXETER RIVER IN THE TOWN OF DANVILLE, 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 and across the public waters of the Exeter River in the Town of Danville, 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 115 kV overhead electric transmission line across the Exeter River in the Town of Danville, New Hampshire, designated as the H141 Line. This existing crossing has not been previously licensed with the Commission<sup>1</sup>. It is necessary for Eversource to replace the H141 Line crossing structures that support the conductors which cross the above referenced waterbody. The existing H141 Line structures are approximately 50 years old and require replacement for this transmission line to continue to function safely and reliably. This structure replacement and repair project is part of a maintenance project necessary for the H141 Transmission Line to continue to meet current as well as future projected electricity demands.
2. The attached Exhibit 1- Location Plan, dated October 12, 2018, shows the general location of the H141 Line crossing to be rebuilt over and across the Exeter River in Danville. The design and proposed construction of the replacement of the H141 Line over the Exeter River will be in accordance with the National Electrical Safety Code (NESC), as shown on the Eversource Plan and Profile Drawing attached as Exhibit 2.
3. Wire and structure specifications:
  - a. Exeter River (Exhibit 2):
    - i. Wire:
      1. OPGW: 84 Fiber
      2. Transmission Wire: 336 kcmil ACSR 26/7
    - ii. Structure Types and Pole Heights: From west to east:

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<sup>1</sup> Due to oversight or the application of different public water or navigability criteria at the time of original construction, the existing H141 Line crossing was not previously licensed with the Commission; however, the rebuilt crossing will be licensed under this petition.

1. Str 267: Type AHS-3, 65' AGH, Class H1
  2. Str 268: Type THS, 70' AGH Class H1
4. The location of the structures creates the following Exeter River crossing span:
    - a. 584.14 linear feet (structure 267 to structure 268)
  5. All conductors have been drawn in Exhibit 2 to show the maximum sag conditions in reference to the water.
  6. Eversource will maintain and operate the clearance of the wire crossing over the Exeter River at a height no less than is required by the 2017 National Electrical Safety Code (NESC, Table 232- 1). The crossing requires clearances of 18.6 feet for 115 kV open supply conductors over water areas not suitable for sail boating. The minimum height over the Exeter River is depicted on the attached profile drawing (Exhibit 2). The profile drawing of the H141 Line shows the conductor's lowest sag point while at maximum operating condition, with the river beyond its banks at 100-year flood elevation, a clearance at 22.9 feet.
  7. The 100-year flood level was established based upon FEMA flood zone maps for the crossing area (Zone A, effective date: May 17, 2005). This elevation is based on the national Geodetic Vertical Datum of 1929 (NAVD 1929). 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 the NESC and provides a conservative clearance requirement (Exhibit 2).
  8. A New Hampshire Division of Environmental Services (NHDES) Shoreland Permit by Notification application is required for construction activities in the vicinity of the Exeter River. The permit by notification application was submitted on September 17, 2018 and approved on September 18, 2018 (File #2018-02858).
  9. It is not anticipated that abutters on either side of the Exeter River will be affected, as this is a replacement of an existing crossing of an overhead line within Eversource's existing utility easements.
  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 the Exeter 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;

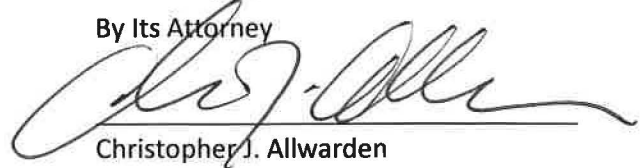
2. Grant Eversource a license to construct and maintain electric lines over and across the public waters which are the subject of this petition; and
3. Issue an Order Nisi and orders for its publication.

Dated at Manchester, New Hampshire this 9<sup>th</sup> day of JANUARY, 2019.

Respectfully submitted,

EVERSOURCE ENERGY

By Its Attorney



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