

STATE OF NEW HAMPSHIRE

Intra-Department Communication

DATE: December 14, 2022

AT (OFFICE): NH Dept. of Energy

FROM: Gary Raymond GMR
Utility Analyst IV – Division of Enforcement

SUBJECT: CRE 2022-030 Eversource Energy
Application for License to Construct and Maintain Electric Lines Over and
Across Public Waters in Berlin, New Hampshire
Staff Recommendation

TO: Jared Chicoine, Commissioner, Department of Energy
Christopher Ellms, Jr., Deputy Commissioner, Department of Energy

CC: Thomas Frantz, Director of Regulatory Support Division
Paul Kasper, Director, Enforcement Division
Elizabeth Nixon, Director-Electric Regulatory Support Division
Andrew Harmon, Hearings Examiner, Enforcement Division

Review by the Division of Enforcement (DOE) of the above application consisted of the following elements:

- Application contents, replacement application contents, and history;
- Applicable State statutes;
- Review of the existing crossing(s) previously licensed by the PUC, if any;
- Review of land ownership of existing pole structures;
- Review of NESC code requirements as described in Puc 300;
- Review of public need and public impact, including applicability of other State regulations; and
- Conclusions and Recommendations.

1. Application contents and history.

On December 6, 2022, Public Service New Hampshire d/b/a Eversource Energy (Eversource, ES or the Company) filed an application for a license pursuant to RSA 371:17 to construct and maintain the Eversource W179 Line, an existing 115 kV transmission line, over and across public water in Berlin, New Hampshire.

In order to meet the requirements for reasonable service to the public, Eversource is proposing a structure replacement and reconductoring project. The structures will be renumbered so that

original Structures 61 and 62 will be renumbered to 62 and 63. Project scope encompasses reconditioning the existing phase conductors with three new 1272 kcmil ACSS Conductors.

Additionally, the single pole top mounted shield wires will be replaced with two 48F pole top OPGW cables.

The conductor cable clearance requirements pursuant to the National Electrical Safety Code (NESC) based on the design conditions at 392 deg F. have been met. This scenario was the governing condition which yielded the greatest sag and lowest clearance. Pursuant to NESC, the minimum clearance for a 115kV line is 18.6 feet for water areas not suitable for sail boating or where sail boating is prohibited. The actual minimum heights over the public water and state-owned lands are depicted in Exhibit 2 submitted by ES and exceed the respective minimum requirements. Staff verified the computed sags with SAG 10 commercial software using inputs as stated in the application.

Wire specifications and loading conditions to establish maximum sag for the crossing span that is the subject of this application are indicated on Profile View and Cable Schedule of Exhibit 3 submitted by ES. The water clearances are taken from the projected 100-year flood elevation. This is more conservative than the 10-year flood levels allowed by the NESC (note 18 to Table 232-1). The 100-year flood elevation for Androscoggin River was derived from FEMA's National Flood Hazard Layer Firmette, 02/20/2013.

The location of the public water crossing that is the subject of this application is depicted on the Overview Map attached hereto as Exhibit 1 submitted by ES, and the DOE Map attached to this recommendation.

The W179 Line crosses the public waters of the Androscoggin River in the Town of Berlin between original structures 61 and 62 (new structure numbers 62 and 63), which span commences approximately 690 feet northwest from where the W179 line crosses East Main Street in Berlin, which is approximately 610 feet south from the intersection of Industrial Park Drive and East Main Street. The public water crossing extends northwest approximately 276 feet to the west side of the Androscoggin River, which is approximately 283 feet west to where the W179 Line crosses NH Route 16, which is approximately 760 feet south from the intersection of NH Route 16 and Victoria Lane in Berlin, NH.

The location of Structures 62 to 63 in this application creates a total span of 824 feet with a span of 276 feet crossing the Androscoggin River.

The following table provides the summary of this application with the crossing to include structure numbers, types, spans, ES design criteria, and NESC compliance.

Department of Energy Enforcement Division Summary Table

Eversource W179 - Waterbody Crossing Details						
Structure	Type	Span (Pole to Pole)	Distance (feet)	Minimum NESC Table 232-1 Clearance (ft.)	ES Vertical Design Clearance (ft.)	Complies with NESC Table 232-1 (Y/N)
62	Type BA Class H3 Running Angle Steel Structure	62-63	824	18.6	45.8	Y
63	Type SDA-1 Class H1 Deadend Steel Structure					

2. New Hampshire statute referenced in application (as modified by N.H. House Bill 1258 on August 22, 2022).

371:17 Licenses for New Poles – Whenever it is necessary, in order to meet the reasonable requirements of service to the public, that any public utility should construct a pipeline, cable, or conduit, or a line of poles or towers and wires and fixtures thereon, over, under or across any of the public waters of this state, or over, under or across any of the land owned by this state, modify a previously licensed installation, or license a previously constructed installation, it shall apply to the department of energy for a license to construct and maintain the same. For the purposes of this section, “public waters” are defined to be all ponds of more than 10 acres, tidewater bodies, and such streams or portions thereof as the department of energy may prescribe. Every corporation and individual desiring to cross any public water or land for any purpose herein defined shall apply to the department of energy for a license in the same manner prescribed for a public utility. The department of energy may condition any license issued under this paragraph in any manner necessary to assure that the license may be exercised without substantially affecting the public rights in public waters or state-owned lands. Using a non-adjudicative process, the department of energy may reject incomplete or improperly filed applications, and shall, also using non-adjudicative process, issue or deny the license within 90 days of receiving a complete application and all information subsequently requested of an applicant.

371:17 Licenses for New Poles (eff. Aug. 20, 2022)

3. Review of existing license(s) and permissions previously granted by the PUC for this location over and across public waters in Berlin, New Hampshire.

The public water crossing at the Androscoggin River that is included in this application was previously licensed in 1976 under Master Order DE 76-22 (Order No. 12,219).

From its inception at the juncture of the Magalloway River at Lake Umbagog, the Androscoggin River in Berlin, NH is listed under the category “Public Rivers and Streams” in the Official List of Public Waters (OLPW). The entire list of public waters can be accessed through the following web link:

<https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/olpw.pdf>

Eversource asserts that a New Hampshire Department of Environmental Services (NHDES) Statutory Permit by Notification (SPN), and a Shoreland Permit Notification (PBN) will be required for temporary impacts associated with the structure replacements described in this application and will be obtained prior to commencement of construction.

The U.S. Army Corps of Engineers (ACOE) does not regulate the subject portion of the Androscoggin River as navigable waters. As a result, a crossing permit from ACOE is not required.

4. Review of land ownership of proposed pole structures.

In its application, Eversource specifies that the structure replacements, conductor replacements and OPGW installation work will be accomplished within existing right-of-way easements, thereby mitigating impacts and concerns of property owners affected by the project scope.

5. Review of NESC code requirements as described in Puc 300.

The Enforcement Division staff reviewed the specifications related to the structure replacements of this crossing project as described in the application, attachments, and all supplemental support documents and corrections filed by the Company and found them to be in conformance with N.H. Admin. Rule Puc 306 and applicable sections of NESC C2-2012.

6. Review of public need and public impact.

The W179 Line is an integral part of Eversource’s existing electric transmission system in New Hampshire. The crossing location identified in the application is in the town of Berlin, New Hampshire. The Company asserts in its application that the existing crossing will be exercised without substantially affecting public rights in the identified public water in New Hampshire.

The Enforcement Division staff verified that minimum safe line clearances above the public water will be maintained at all times and determined that public use and enjoyment of the public water will not be diminished in any material respect as a result of the proposed project.

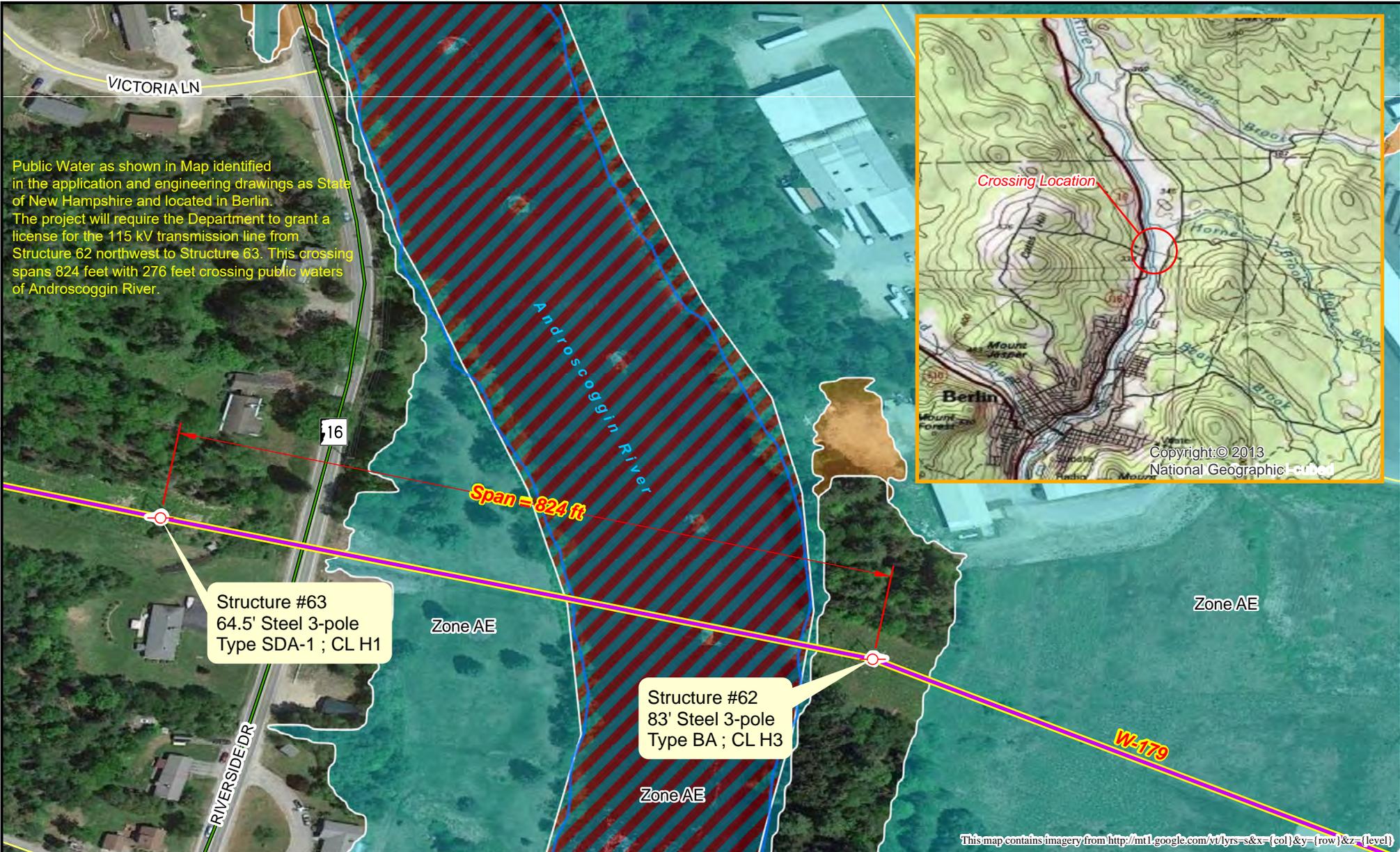
7. Enforcement Division Recommendation:

Based on the results of its review of the application, attachments, and all other supporting documents, the Enforcement Division recommends that the Department:

- 1) Find that the license Eversource requests in this docket may be exercised without substantially affecting the public rights in public water; and
- 2) Grant Eversource a license to construct and maintain electric lines pursuant to RSA 371:17 and Puc 306.01, over and across public water in the town of Berlin, New Hampshire as specified in the application.

Attachment:

Androscoggin River - CRE 2022-030 Eversource Crossing



	Utility Structure
	115 kV Line
Flood Hazard Zones	
	Regulatory Floodway
	1% Annual Chance Flood Hazard
	0.2% Annual Chance Flood Hazard



Prepared by:
NH Department of Energy
Enforcement Division

