

STATE OF NEW HAMPSHIRE

Intra-Department Communication

Date: February 29, 2024

At (Office): NH Dept. of Energy

From: Bryan J Flynn B J F
Utility Analyst IV – Enforcement Division

Subject: CRE 2024-001 **Eversource Energy**
Application for License to Construct and Maintain Electric Lines Over and Across
Public Waters and State-Owned Land in Dover, 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 of Enforcement Division
Elizabeth Nixon, Director of Electric Regulatory Support Division
Andrew Harmon, Hearings Examiner, Enforcement Division

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

- Application contents, revised application contents, and history.
- Applicable State statutes.
- Review of existing crossing(s) previously licensed by the State of New Hampshire, if any.
- Review of land ownership and 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
- Recommendations

1. Application Contents and History

On February 15, 2024, Public Service Company of New Hampshire d/b/a Eversource Energy (Eversource, ES) submitted an application pursuant to RSA 371:17 for a license to construct and maintain the R169 Line in Dover, New Hampshire. The ES R169 Line is a 115 kV transmission line that crosses public waters at the Piscataqua River between Structures 3 (Eliot, ME) and 4 (Dover, NH) and at the Cocheco River between Structures 26 to 27 and Structures 28 to 29. The R169 Line crosses State-owned land manage by the New Hampshire Department of Fish and Game (NHDFG) between Structures 19 to 27, with the land boundary being the SE bank of the Cocheco River. Eversource is requesting that the Department of Energy issue a license for the purpose of proposed structure replacement and OPGW installation on the entirety of the R169 Line.

Eversource has determined that in order to continue to meet requirements for reasonable service to the public, the existing wood structures at State-owned land and public water crossings need to be replaced. As part of the replacement project, all structures are being renumbered. Structures 4 through 30 shall be renumbered 3 through 29, respectively. Renumbered structures 19, 21, 22, 27, and 28 will be replaced with weathering steel equivalents and located within 10 feet of the current structure locations. Renumbered Structure 20 will be relocated 40 feet northwest of the current structure location to allow for construction space away from a property boundary wall. Structure 29 at the Cocheco River span will be planned and replaced as part of a separate project at the Cocheco Street Substation.

The existing pole-top static wire for the entirety of the R169 Line is being replaced with OPGW, the specifications for which are detailed on the Cable Schedule and Structure Details on application Exhibits 2 through 10. The three existing conductors and ADSS cable will be transferred, but remain unchanged, as a result of the project.

The locations of the public water and State-owned land crossings are depicted on the Overview Map submitted by ES with the application as Exhibit 1, and more detailed location descriptions are as follows:

The R169 Line crosses the public waters of the Piscataqua River between Structure 3 in Eliot, Maine and Structure 4 in Dover, New Hampshire. Structure 4 is located approximately 2,800 feet SE from where the R169 Line crosses Cullen Bay Rd. The Piscataqua River crossing beings approximately 95 feet SE from Structure 4 and continues SE over public waters to Structure 3 in Maine.

- The proposed structure locations create a total span of 1,095.8 feet, with 853.8 feet of the span crossing public waters.

The R169 Line crosses State-owned land in Dover between Structures 19 through 27. Structure 19 is located approximately 400 feet SE of where the R169 Line crosses McKone Ln. The State-owned land crossing begins on the NW side of McKone Ln, approximately 435 feet NW of Structure 19 and continues NW to Structure 26 where the State-owned land ends at the bank of the Cocheco River,

approximately 100 feet beyond Str. 26. **There is a privately owned driveway between Structures 22 and 23 which eliminates 83.5 feet of State-owned land in that span.*

- The proposed structure locations create a total span of 4,023.3 feet, with 3,077.2 feet of the span crossing State-owned land managed by the NH Department of Fish and Game.

The R169 Line crosses the Cocheco River between Structures 26 and 27 and again between Structures 28 and 29. Structure 26 is located approximately 2,800 feet E of the intersection of River St. and Washington St. in Dover. The first public water crossing begins approximately 100 feet N of Structure 26. Structure 28 is located approximately 670 feet SE from where the R169 Line crosses Cocheco St. The second water crossing begins approximately 150 feet NW from Structure 28.

- The proposed structure locations create a total span of 1,157.5 feet with 637.9 feet of the two spans crossing the public waters of the Cocheco River.

The following table illustrates the structure and span details provided in the application, as well as required NESC clearance and the designed clearance at each crossing span:

Eversource Energy - R169 Line CRE 2024-001 State-Owned Land and Public Water Crossing Design Details						
Structure Number	Structure Type	Measured Span	Distance (feet)	Minimum NESC Clearances (feet)	ES Design Clearances (feet)	Complies with NESC 232-1 (Y/N)
4	Steel Lattice	3 – 4	1095.8	42.1	63.5	Y
19	T-1 Steel	19 – 20	517.8	15.5 *	35.5	Y
20	T-1 Steel	20 – 21	259.1	15.5 *	36.3	Y
21	T-1 Steel	21 – 22	294.8	15.5 *	32.6	Y
22	T-1 Steel	22 – 23	626.1	15.5 *	33.5	Y
23	T-1 Steel	23 – 24	589.5	15.5 *	38.7	Y
24	T-1 Steel	24 – 25	559.5	15.5 *	18.0	Y
25	ST-1 Steel	25 – 26	660.7	15.5 *	24.7	Y
26	ADS-1 Steel	26 – 27	515.8	Water 37.5 *	53.9	Y
27	SA-1 Steel	26 – 27	515.8	Other 15.5 *	54.4	Y

28	T-1 Steel	28 – 29	641.7	37.5 *	38.7	Y
29	DA 3-pole Wood					
<i>* ADSS (0 kV) specifications used due to its location as the lowest strand attached at each structure</i>						

2. New Hampshire statute referenced in application (modified by NH House Bill 1258, August 22, 2022)

RSA 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.

3. Review of existing license(s) and permissions previously granted by the State of New Hampshire, including additional permitting requirements, for the applicable public water and State-owned land crossings in Dover, New Hampshire

Originally constructed in 1953 to meet the needs of electric customers in New Hampshire, the R169 Line was rebuilt in 2002 and the prior licensing for portions of the line are as follows:

- In 1955, the Piscataqua River crossing at Str. 3-4 was licensed under DE-3442, order No. 6,668;
- In 2001, the Cocheco River crossing at Str. 28-29 was licensed under DE 01-233, order No. 23, 860;
- In 2022, the Cocheco River crossing at Str. 26-27 was licensed under CRE 2022-019;
- The State-owned lands in this current application were also previously licensed under CRE 2022-019.

Eversource states that for the current project, a New Hampshire Department of Environmental Services (NHDES) wetland statutory permit by notification (PBN) and a Shoreland Permit Notification (SPN) will be required and obtained prior to construction.

The Cocheco and Piscataqua Rivers at the R169 Line crossing locations are subject to regulation by the Army Corps of Engineers (ACOE) and therefore ES attests that ACOE NH Programmatic General Permit #4 will be obtained prior to construction.

The Cocheco River is held by the State of New Hampshire as protected public waters beginning in New Durham, southeast of March's Pond. The Cocheco River flows southeast to a confluence with the Piscataqua River in Dover. The Piscataqua River continues southeast becoming tidal waters, eventually reaching the Atlantic Ocean east of Rye, NH. The entire list of public waters can be found on the NHDES website by using the following link

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

4. Review of land ownership at proposed pole structures

Eversource attests that the proposed structure replacement and OPGW installation work will be accomplished with existing right-of-way easements, thereby mitigating impacts and concerns of property owners adjacent to the project locations. A list of abutters was provided by Eversource in addition to the application and exhibits.

5. Review of National Electrical Safety Code (NESC) requirements as described in N.H. Admin. R., Puc 306.01 (b)

Eversource shall own, maintain, and operate the R169 Line with clearances at a height no less than what is required by the 2012 National Electrical Safety Code (Table 232-1) which is 42.1 feet for 115 kV wires over "water areas suitable for sail boating including...tidal waters...with an unobstructed surface area of over 2000 acres", 37.5 feet for 0 kV (ADSS) cable over "water areas suitable for sail boating including...tidal waters...with an unobstructed surface area of over 2000 acres", and 15.5 feet for 0 kV (ADSS) cable over "other areas traversed by vehicles...forests...etc.". The actual design height over the public water and State-owned land on the submitted drawings exceeds the minimum requirements.

Eversource proposes to install five type T-1 steel structures and one SA-1 steel structure on the R169 Line. Structure heights range from 70 to 103 feet. Line supporting structures are required to conform to strength and loading specifications described in NESC 2012 rule 252, 260, and 261.

Enforcement Division staff reviewed the specifications of the proposed replacement work and proposed structure locations and found them to be in conformance with N.H. admin. R., Puc 306.01 and applicable 2012 NESC rules. The minimum clearance requirements with respect to ground level and design conditions at 285°F for the 1272 conductor and 32°F for ADSS, as well as the FEMA 10-year

flood level have been met. Staff verified the depicted the wire specifications and loading conditions provided by ES in application Exhibits 2 through 10.

6. Review of public need and impact

The Eversource R169 Line was built to accommodate the importation of additional electrical generation from Maine and physically connects the Eversource Dover Substation with the Eversource Cocheco Street Substation, also in Dover.

RSA 371:17 requires the Department of Energy to review applications for licenses to construct, maintain, or modify installations that exist or are proposed to exist, over, under, or across public waters or State-owned land. This is to provide for safety of the public and the preservation of perpetual access and use of public waters and State-owned land in New Hampshire.

Eversource declares that the license, if granted, may be exercised without substantially affecting the use or enjoyment of public waters or State-owned land, that safe clearances will be maintained at all times, and precautions undertaken to ensure the safety of recreational users. The Enforcement Division's review of design specifications verified that minimum safe clearances above water and land will be maintained during and after construction; and therefore, determines that public use and enjoyment of said water and land will not be diminished in any respect as a result of the proposed project.

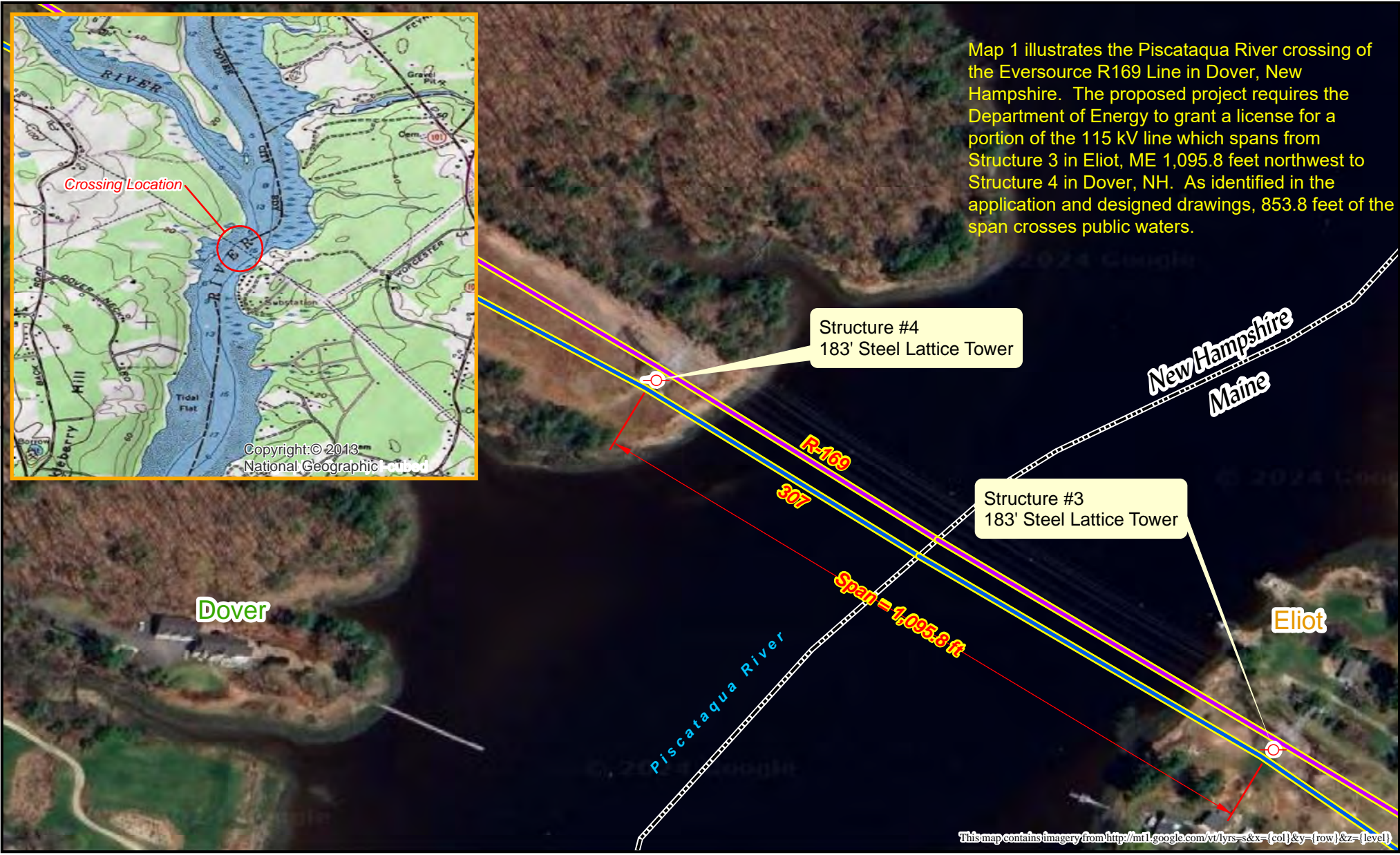
7. Enforcement Division Recommendations

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 that Eversource requests in the application may be exercised without substantially affecting public rights on State-owned land and public waters; and
 2. Grant Eversource a license to construct and maintain electric lines pursuant to RSA 371:17 and N.H. Admin. R., Puc 306.01, over and across State-owned land and public waters in Dover, New Hampshire, as specified in the application.
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Attachments:

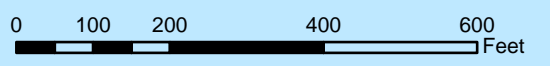
Piscataqua River (Tidal) - CRE 2024-001 Eversource Crossing - Map 1



-  Utility Structure
-  345 kV Line
-  115 kV Line



Prepared by:
NH Department of Energy
Enforcement Division



Cocheco River & NH State Land (Dept of Fish & Game) - CRE 2024-001 Eversource Crossing - Map 2



Pole to Pole	Span	Length (ft)	Location
#19 to #20	Span A	517.8	Land
#20 to #21	Span B	259.1	Land
#21 to #22	Span C	294.8	Land
#22 to #23	Span D	626.1	Land
#23 to #24	Span E	589.5	Land
#24 to #25	Span F	559.5	Land
#25 to #26	Span G	660.7	Land
#26 to #27	Span H	515.8	Land/Water
#28 to #29	Span I	641.7	Water
Total Span #20 - #28		4,665.0	

Map 2 illustrates the Cocheco River crossing of the Eversource R169 Line, as well as the spans that cross over land managed by the NH Department of Fish and Game. The project requires that the Department of Energy grant a license for the portion of the 115 kV line and associated ADSS cable which spans from Structure 19 4,665 feet northwest to Structure 29. As detailed in the application and designed drawings, 637.9 feet of that portion crosses public water, and 3077.2 feet of that portion crosses State-owned land.

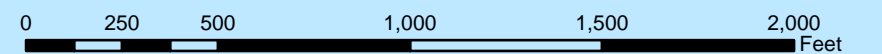
State Land Crossed = 3,076.2 ft



- Utility Structure
- 34.5 kV Lines
- 115 kV Lines
- State Land Parcel
- Town Parcel
- Substation



Prepared by:
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This map contains imagery from <http://mtl.google.com/vt/lyrs=s&x={col}&y={row}&z={level}>