

STATE OF NEW HAMPSHIRE

Intra-Department Communication

DATE: August 3, 2022

AT (OFFICE): NH Dept. of Energy

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

SUBJECT: CRE 2022-020 Eversource Energy
Petition for License to Construct and Maintain Electric Lines Over and Across
Public Water in Goffstown, 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

The Division of Enforcement's review of the above petition consisted of the following elements:

- Petition contents, replacement petition contents, and history;
- Applicable State statute;
- 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. Petition contents and history

On July 28, 2022, Public Service New Hampshire d/b/a Eversource Energy (Eversource, ES or the Company) filed a petition for a license pursuant to RSA 371:17 to construct, maintain and operate the Eversource Q171 Line, which is an existing 115kV transmission line that crosses public water in Goffstown.

As part of its ongoing asset condition inspection program, Eversource determined that the existing wood Structures 139 and 140 at the public water crossing need to be replaced to continue to function safely and reliably. Structure 139 will be replaced with weathering steel

equivalent that will be located within 10' of the original structure location. Shortly after the Structure 139 replacement is completed and in conjunction with a maintenance project planned for the Greggs Substation located near Structure 140, anticipated to commence in 2023, the existing wood three-pole Structure 140 will be replaced with a single pole engineered weathered steel structure located within 10' of the original structure location. Also, as part of the Greggs Substation improvements, the existing three 795 ACSR 36/1 conductors will be replaced with 1272 ACSS 54/19 conductors. The existing two pole top shield wires will be replaced with two pole top OPGW wires.

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

The Q171 Line crosses Glen Lake commencing at Structure 139 immediately south from where the Q171 Line crosses Elm Street in Goffstown, approximately 400 feet east from the entrance to the Glen Lake School and approximately 325 feet west from the Glen Lake Public Boat Ramp on Elm Street. The waterbody crossing extends south approximately 1,187 feet to Structure 140, where the line turns 90 degrees east into the Greggs Substation, located off Mast Road in Goffstown between the Goffstown Rail Trail Parking Lot and the Greggs Falls Dam/Hydroelectric station.

Wire specifications and loading condition to establish maximum sag for the crossing span that is the subject of this petition are as indicated on Profile View and Cable Schedule of Exhibit 2 and 3 submitted by ES. The water clearances are taken from the projected 100-year flood levels. 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 Glen Lake was derived from FEMA's National Flood Hazard Layer.

The location of Structures 139 and 140 creates a total span of 1187.4 feet, with a span of 964.2 feet over and across public water.

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

Department of Energy Safety Bureau Summary Table

Eversource Q171 Line - Public Water 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)
139	Type T, Class H9	139-140	1187.4	30.1	37.8	Y
140	Type SDE, Steel Pole					

2. New Hampshire statute referenced in petition (as modified by N.H. House Bill 2 on June 3, 2021)

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, it shall petition 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 petition the department of energy for a license in the same manner prescribed for a public utility.

371:17 Licenses for New Poles (2021, 91:260, eff. July 1, 2021)

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

The Q171 115kV line was previously licensed in 1975 under Docket DE 75-106 (Order No. 11,856).

Glen lake is listed under the category “Ponds and Lakes” 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) wetland Statutory Permit by Notification (SPN) and Shoreland Permit by Notification (PBN) will be required to account for temporary wetland and shoreland buffer impacts associated with the

replacement of Structures 139 and 140. The SPN and PBN will be obtained by Eversource prior to commencement of construction.

4. Review of land ownership of proposed pole structures

In its petition, Eversource specifies that the new poles and conductors to be licensed pursuant to this petition will be located across public water in Goffstown, New Hampshire. The structure replacement work will be accomplished within existing Eversource easements.

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

The Safety Bureau reviewed the specifications related to the design and reconductoring of this crossing project as described in the petition, 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 Q171 Line is an integral part of Eversource's existing electric transmission system in New Hampshire. The crossing location identified in the petition is in the town of Goffstown, New Hampshire. The Company asserts in its petition that the existing crossing will be exercised without substantially affecting public rights in the identified public water.

The Safety Bureau verified that minimum safe line clearances across 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 overhead line crossing.

7. Safety Bureau Recommendation:

Based on the results of its review of the petition, attachments, and all other supporting documents, the Safety Bureau recommends that the Department:

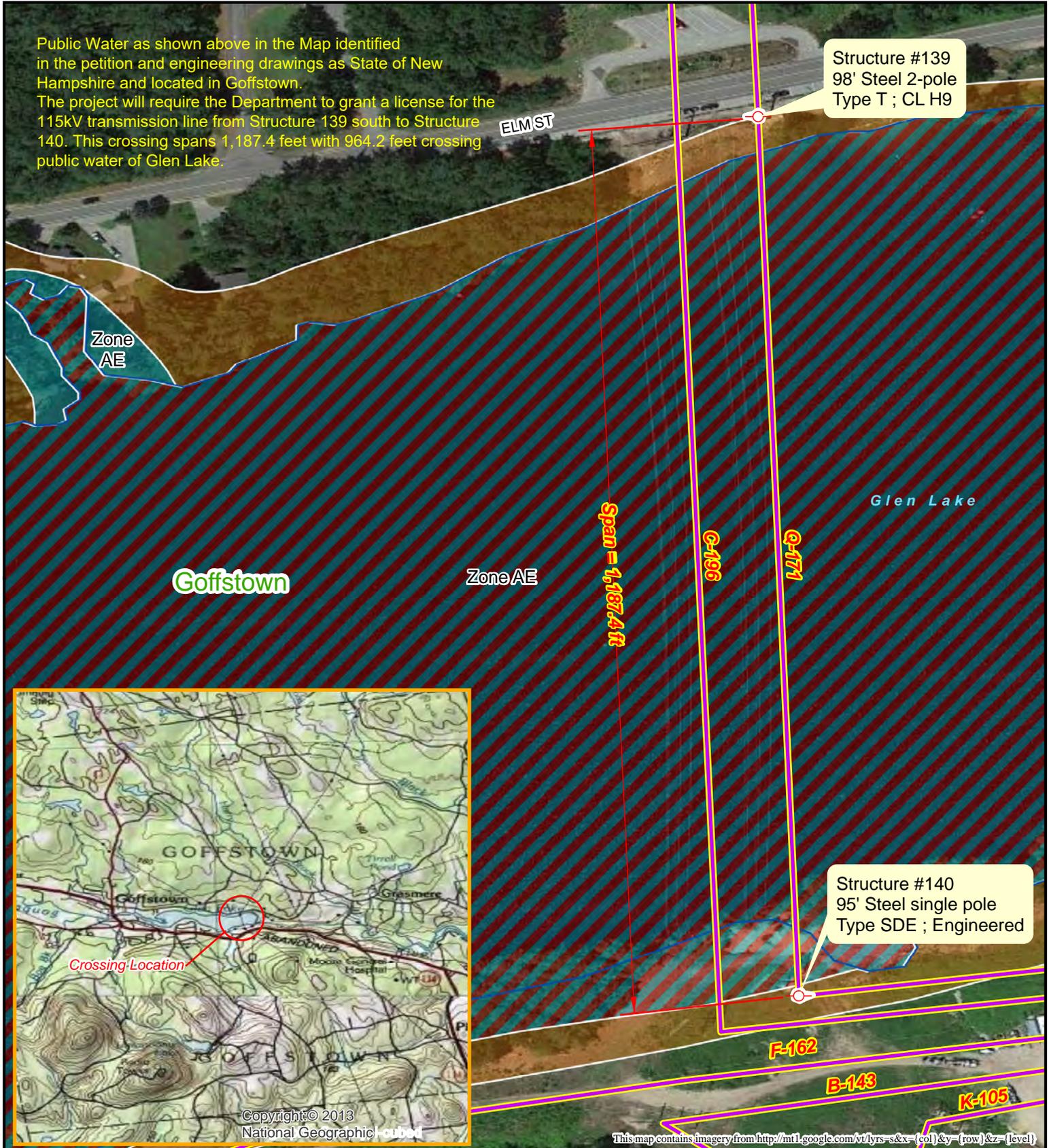
- 1) Find that the license Eversource requests in this docket may be exercised without substantially affecting the public across public waters; and
- 2) Grant Eversource a license to construct, install, operate, and maintain electric lines pursuant to RSA 371:17 and Puc 306.01, over and across public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

Attachment:

Glen Lake - CRE 2022-020 Eversource Crossing

Public Water as shown above in the Map identified in the petition and engineering drawings as State of New Hampshire and located in Goffstown. The project will require the Department to grant a license for the 115kV transmission line from Structure 139 south to Structure 140. This crossing spans 1,187.4 feet with 964.2 feet crossing public water of Glen Lake.

Structure #139
98' Steel 2-pole
Type T ; CL H9



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

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



Prepared by:
NH Department of Energy
Enforcement Division
Safety Bureau