

STATE OF NEW HAMPSHIRE

Inter-Department Communication

DATE: June 22, 2021

AT (OFFICE): NHPUC

FROM: Kenneth Walsh *KGW*
Utility Analyst IV – Safety Division

SUBJECT: Docket No. DE 21-099 Public Service New Hampshire d/b/a
Eversource Energy
Petition for License Amendment to Construct and Maintain Electric
Lines Over and Across Lake Sunapee in Sunapee, New Hampshire
Staff Recommendation

TO: Debra Howland, Executive Director
Thomas Frantz, Director, Electric Division
Richard Chagnon, Assistant Director, Electric Division
Lynn Fabrizio, Staff Attorney
Randall Knepper, Director, Safety Division
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The Safety Division's review of the above petition consisted of the following elements:

- Petition contents and history;
- Applicable State Statute;
- Review of the existing crossing(s) previously licensed by the PUC;
- 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 May 13, 2021, Public Service New Hampshire d/b/a Eversource Energy (ES), filed a petition for a license amendment pursuant to RSA 371:17 to construct, maintain and operate the Eversource 316 Line, which is a three phase 34.5kV distribution line, over and across the public waters in Sunapee.

The public water crossing encompasses a portion of the public waters of Lake Sunapee, specifically Sunapee Cove in Sunapee. The original line construction was not previously licensed for unknown reasons.

ES asserts this project scope is the result of ongoing field inspections that determined existing wood Structure # 62 will be replaced with a steel structure. The three existing

conductors and one existing neutral wire will be transferred to the new replacement structure.

The scope of this project begins at existing Structure #61 approximately 250 feet east from where the 316 Line crosses Knoll Road in Sunapee. The 316 Line then crosses northeast over the most northern portion of Lake Sunapee at Sunapee Cove.

Common to all structures, conductors for the 34.5 kV 316 distribution line will consist of (3) 477 kcmil ACSR 18/1 cables. The neutral wire will consist of (1) 477 ACSR 18/1 cable, which will be vertically attached below the conductors. The neutral cable clearance requirements were met using the National Electrical Safety Code (NESC) conditions at 212 deg F. This scenario was the governing condition, which yielded the greatest sag and lowest clearance. Staff verified the computed sags with SAG 10 commercial software using inputs as stated in the petition. In its petition, ES provides sufficient detail to show how the NESC Table 232-1 required clearance of 37.5 feet from the conductor cables to the water areas suitable for sail boating will be maintained at 44.7 feet over Lake Sunapee.

As shown in ES Exhibit #2, existing Structure #61 was constructed of (1)-54.1 ft. AGH Type DTR 10.511, CL 3 wood pole. Structure #62 will be constructed of (1)-53.5 ft. AGH Type DTR 10.620, CL H1 steel pole. This crossing creates a total span of 194.84 feet with 174.5 feet spanning Lake Sunapee. See attached PUC Safety Map.

2. New Hampshire statute referenced in petition

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 commission 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 commission may prescribe. Every corporation and individual desiring to cross any public water or land for any purpose herein defined shall petition the commission for a license in the same manner prescribed for a public utility.

Source. 1921, 82:1. PL 244:8. RL 294:16. 1951, 203:48 par.17. 1953, 52:1, eff. March 30, 1953. 2013, 82:1, eff. June 19, 2013.

3. Review of existing license(s) and permissions previously granted by the PUC for this location of the Public Waters in Sunapee.

The public water crossing encompassing Lake Sunapee was not previously licensed.

Lake Sunapee is listed under the category “Public Lakes and Ponds” in the NH 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>

ES asserts environmental impact as a result of this project and that permits will be obtained from NHDES prior to work commencing.

The U.S. Army Corps of Engineers (ACOE) does not regulate the subject portion of Lake Sunapee as navigable waters.

4. Review of land ownership of proposed pole structures

In its petition, ES specifies that the replacement of the structures is over public waters in Sunapee, New Hampshire.

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

Under N.H. Code Admin. Rules Puc 306, each utility is required to construct, install, operate and maintain its plant, structures and equipment and lines, as follows:

In accordance with good utility practice;

After weighing all factors, including potential delay, cost and safety issues, in such a manner to best accommodate the public; and

To prevent interference with other underground and above ground facilities, including facilities furnishing communications, gas, water, sewer or steam service.

For purposes of that section, “good utility practice” means in accordance with the standards established by the “National Electrical Safety Code C2-2012.”

ES states that the current crossing has been designed and will be re-constructed, maintained, and operated in accordance with the NESC C2-2012.

Safety Division Staff reviewed the specifications related to the design and re-construction of this crossing project as described in the petition, the attachments, and all supplemental support documents, and found them to be in conformance with the applicable sections of NESC C2-2012 and Puc 300.

6. Review of public need and public impact

In order to meet the reasonable requirements of electric service to the public, ES proposes to replace one existing wood structure with a steel structure, transfer existing conductors and neutral wire, and maintain a three-phase 34.5 kV distribution line

designated as the 316 Line over and across the public waters of Lake Sunapee in Sunapee, New Hampshire.

ES asserts in the petition that the existing crossing will be exercised without substantially affecting the rights of the public in the public waters in Sunapee. Minimum safe line clearances above the water will be maintained at all times. The use and enjoyment of the public waters by the public will not be diminished in any material respect as a result of the overhead line crossing.

Safety Division Staff concludes the impact to the public will be de minimis and not measurable. The crossings do not appear to affect the rights of the public in the public waters because minimum safe line clearances above the water will be maintained at all times.

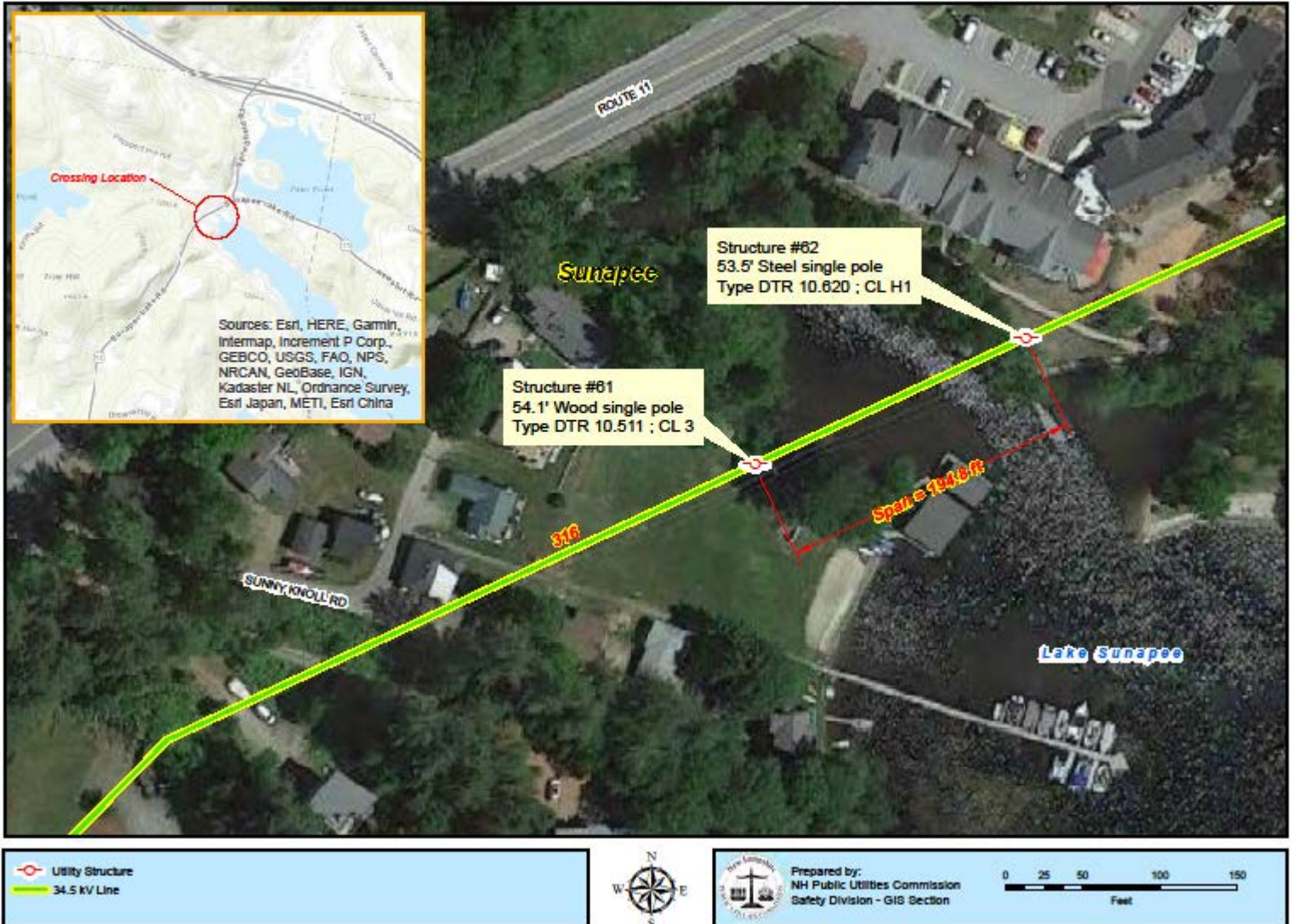
Staff Recommendation:

Based on the results of its review of the petition, its attachments, and all other supporting documents filed to this docket, the Safety Division Staff recommends that the Commission:

- 1) Find that the license amendment ES requests in this docket may be exercised without substantially affecting the public rights in the public waters, which is the subject of the petition;
- 2) Grant ES an amended license to construct, operate and maintain electric lines over and across the public waters in Sunapee, New Hampshire, as specified in the petition;
- 3) Issue an Order Nisi and orders for its publication.

Attachment

Lake Sunapee - DE 21-099 Eversource Crossing



Public waters as shown above identified in the petition and engineering drawings as State of New Hampshire and located in Sunapee. The project will require the Commission to grant an amended license related to this project. The license will be for the 34.5 kV 316 Distribution Line from Structure #61 northeast to Structure #62. The crossing over Lake Sunapee spans 194.8 feet with 174.5 feet spanning public waters.

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