

STATE OF NEW HAMPSHIRE

Inter-Department Communication

DATE: August 14, 2020

AT (OFFICE): NHPUC

FROM: Kenneth Walsh
Utility Analyst IV – Safety Division

SUBJECT: Docket No. DE 20-103 Public Service New Hampshire d/b/a
Eversource Energy
Petition for a License to Construct and Maintain Electric Lines Over and
Across Land Owned by the State in the Town of Merrimack, New
Hampshire
Staff Recommendation

TO: Debra Howland, Executive Director
Thomas Frantz, Director, Electric 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 statutes;
- Review of the existing crossing(s) not 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 June 29, 2020, Public Service Company of New Hampshire d/b/a Eversource Energy (ES), filed a petition pursuant to RSA 371:17 for a license to re-construct, maintain, and operate the Eversource 3195 Line, which is a 345 kV transmission line. This is a project to replace two structures on the existing 3195 transmission line. The existing static wire will be replaced with optical ground wire, which is being replaced from other structures beyond the boundary of state-owned land. All other wires will be transferred from existing structures to new structures replaced at the same locations.

The 3195 Line crossing of the State's land parcel in the Town of Merrimack, New Hampshire was not previously licensed when the 3195 Line was originally constructed,

and therefore no Commission license was required. According to ES, the existing 3195 Line structures and associated transmission components are approximately 40 years old, have been subject to environmental damage and require replacement for the line to continue to function safely and reliably. The structure replacement and repair project is part of a capital reliability project that is necessary for the 3195 Line to continue to meet current as well as future projected electricity demand. See the detailed NHPUC Safety Division map/schematic in the attachment of this recommendation.

As shown in ES Exhibit #2, Structure # 95 is an existing (2)-92.5 ft. OAL Type EA1-CL1 wood pole and is not to be replaced as ES asserts this structure maintains a satisfactory condition rating. The structure will have conductors for the 345 kV 3195 transmission line consisting of (3) 850.8 kcmil ACSR 45/7 cables. The fiber optic cables consisting of (1) 48 Fiber OPGW and (1) 84 Fiber OPGW will be vertically attached above the conductors. The conductor cable clearance requirements were met using the National Electrical Safety Code (NESC) conditions at 285 deg F. This scenario was the governing condition, which yielded the greatest sag and lowest clearance. In its petition, ES provides sufficient detail to show how the required clearance from the conductor cables to the land surface will be maintained at (35.5 feet). Staff verified the computed sags with SAG 10 commercial software using inputs as stated in the petition. Only 24.8 feet clearance is required by the NESC Table 232-1.

Structure # 96 is to be constructed with (2)-97 ft. OAL Type A CL H3 steel poles. The structure will have conductors for the 345 kV 3195 transmission line consisting of (3) 850.8 kcmil ACSR 45/7 cables. The fiber optic cables consisting of (1) 48 Fiber OPGW and (1) 84 Fiber OPGW will be vertically attached above the conductors.

Structure # 97 is to be constructed with (3)-83.5 ft. OAL Type D CL H3 steel poles. The structure will have conductors for the 345 kV 3195 transmission line consisting of (3) 850.8 kcmil ACSR 45/7 cables. The fiber optic cables consisting of (1) 48 Fiber OPGW and (1) 84 Fiber OPGW will be vertically attached above the conductors. This crossing creates a total span of 1306.08 ft. between structures 95 through 97 with 386.02 ft. spanning state-owned land.

2. New Hampshire statutes applicable to 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 land ownership of proposed pole structures

In its petition, ES specifies that the re-construction of the 3195 Line crossing will cross state-owned land in the Town of Merrimack.

4. 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 crossings have 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.

5. Review of public need and public impact

In order to meet the reasonable requirements of electric service to the public, ES proposes to re-construct and maintain a three-phase 345 kV transmission line, designated as the 3195 line, and related fiber optic cables, over and across land owned by the State in the Town of Merrimack. The 3195 transmission line is an integral part of ES’s electric transmission system in the region.

ES asserts in the petition that the proposed licenses for this crossing may be exercised without substantially affecting the rights of the public in the state-owned land in Merrimack. Minimum safe line clearances above the land surface will be maintained at all times. The use and enjoyment by the public of the land will not be diminished in any

material respect as a result of the proposed structure replacements of the existing overhead line crossings.

The crossing project required a New Hampshire Department of Environmental Services statutory permit by notification (SPN) if construction access and work activities involve the temporary minor alteration of non-tidal wetlands, non-tidal surface waters, and banks adjacent to non-tidal surface waters and is applicable to the public water crossings. ES obtained an SPN for the impacts associated with the proposed replacement of structures 96 and 97 in the town of Merrimack (SPN# 2020-00583).

Safety Division Staff has concluded that the impact to the public will be *de minimis* and not measurable. The crossing does not appear to affect the rights of the public in the state-owned land because minimum safe line clearances above the land surface will be maintained at all times.

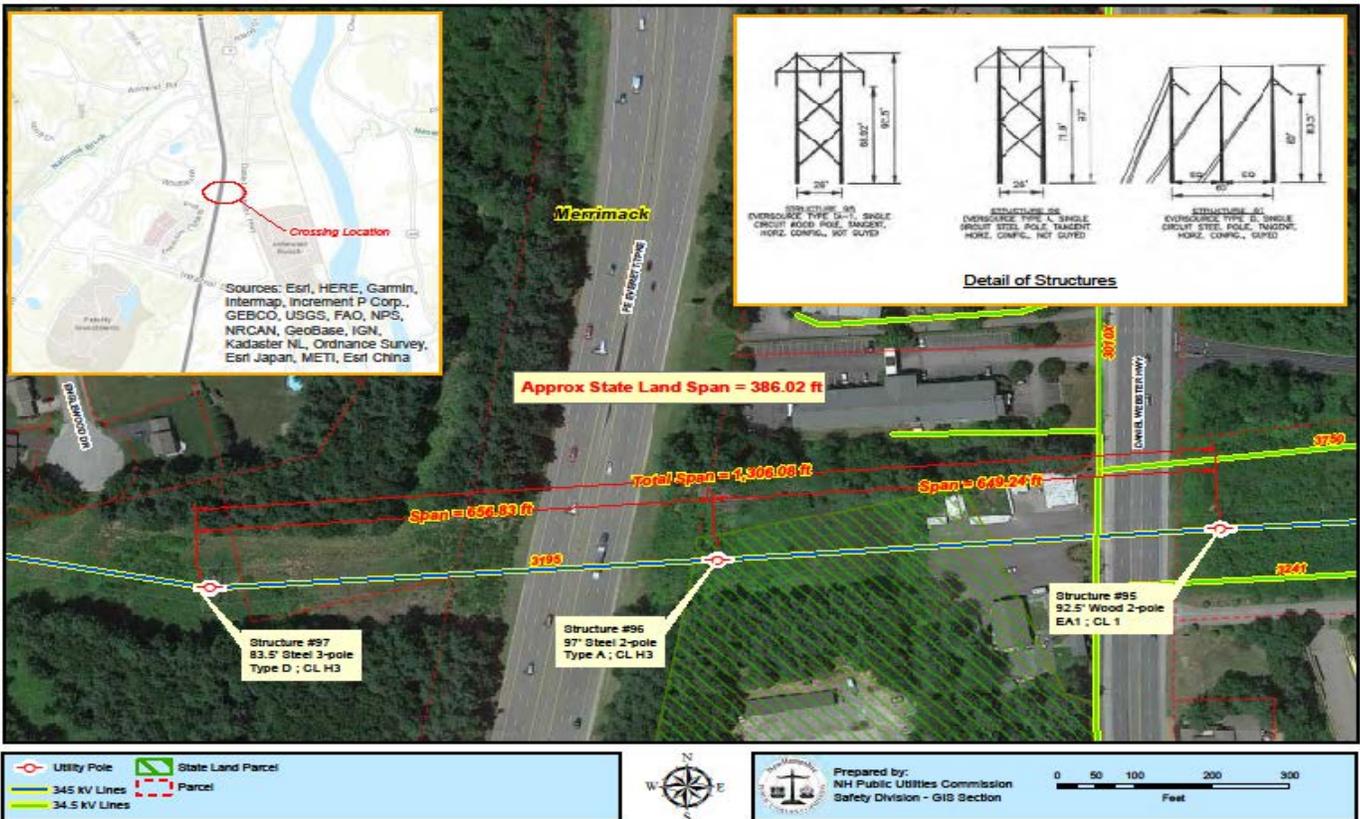
Staff Recommendation:

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

- 1) Find that the crossing license requested by ES in this docket may be exercised without substantially affecting the public rights in state-owned land which are the subject of the petition;
- 2) Grant ES a license to construct, operate, and maintain electric lines and telecommunication cables over and across the state-owned land in the Town of Merrimack, as specified in the petition; and
- 3) Issue an order *nisi* granting the crossing license, and orders for the publication of that order.

Staff Attachment

NH State Land - DE 20-103 EVERSOURCE Crossing - Map 1



Public Land that is state-owned land as shown in green hash marks in the petition and engineering drawings as State of New Hampshire. The parcel is located in the Town of Merrimack. The project will require the Commission to grant a public land crossing license related to this parcel. The license will be for the 345 kV 3195 transmission line from Structure # 95 to Structure # 97, crossing approximately 386.02 feet of state-owned land in the Town of Merrimack.

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