

# STATE OF NEW HAMPSHIRE

## Inter-Department Communication

**DATE:** April 6, 2021

**AT (OFFICE):** NHPUC

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

**SUBJECT:** Docket No. DE 21-048 Public Service New Hampshire d/b/a  
Eversource Energy  
Petition for License to Construct and Maintain Electric Lines Over and  
Across State Owned Land in Londonderry, 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  
Paul Kasper, Assistant Director, Safety Division

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

- Petition contents and Replacement 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 March 15, 2021, Public Service New Hampshire d/b/a Eversource Energy (ES), filed a petition for a license pursuant to RSA 371:17 to construct, maintain and operate the Eversource 326 line, which is a three phase 345kV transmission line, over State owned land in Londonderry.

On March 17, 2021, ES filed a replacement petition resulting from errors identified by Safety Staff in the Company's March 15, 2021 original petition.

The State owned land in Londonderry encompasses the Londonderry Rail Trail with the scope of this project to replace the existing wood Structure #5 with a steel structure.

This crossing was not previously licensed; however, in 2018, Structure #4 was replaced with a steel structure without obtaining a license reportedly due to an oversight.

The existing three (3) conductors, static wire, and communication fiber optical ground wire (OPGW) will be transferred to the new steel structure. Both the static wire and OPGW will be vertically attached above the conductors.

The scope of this project begins in Londonderry at Structure #4, which is northeast of the Londonderry Rail Trail in the area north of the intersection of Route 28 (Rockingham Road) and Seasons Lane. The 326 Line then traverses southwest crossing the Rail Trail to Structure #5.

As shown in ES Exhibit #2, Structure #4 was constructed of (3)-88 ft. AGH Type SED-2, CL H4 steel poles. The structure will have conductors for the 345 kV 326-transmission line consisting of (3) 850.8 kcmil ACSR 45/7 cables. The static wire will consist of (1) 7#8 Alumoweld cable and the (1) communication cable will consist of a 64 Fiber OPGW, which both 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 (48.9 feet). Staff verified the computed sags with SAG 10 commercial software using inputs as stated in the petition. Only 32.8 feet clearance is required by the NESC Table 232-1.

Structure #5 is to be constructed with (2)-79 ft. AGH Type A, CL H3 steel poles. The structure will have conductors for the 345 kV 326 -transmission line consisting of (3) 850.8 kcmil ACSR 45/7 cables. The static wire will consist of (1) 7#8 Alumoweld cable and the (1) communication cable will consist of a 64 Fiber OPGW, which both will be vertically attached above the conductors. This crossing creates a total span of 445 ft. between structures #4 and #5 with 51.7 ft. spanning state-owned land. 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 State owned land in Londonderry.**

The State owned land crossing span in Londonderry was not previously licensed.

ES asserts no environmental impact from this project. Therefore, no permits will be required from the NH Department of Environmental Services.

**4. Review of land ownership of proposed pole structures**

In its petition, ES specifies that the replacement of the structure is over state owned land in the Town of Londonderry, 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 an existing wood structure with a steel structure and transfer existing conductors, static wire and fiber optic communication cable and maintain a three-phase 345 kV transmission line designated as the 326 Line over and across state owned land in

Londonderry, New Hampshire. This crossing encompasses the Londonderry Rail Trail. This transmission line is an integral part of ES's electric transmission system in this area.

ES asserts in the petition that the existing crossings will be exercised without substantially affecting the rights of the public in the State owned land in Londonderry. Minimum safe line clearances above the land will be maintained at all times. The use and enjoyment of the state owned land 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 crossing does not appear to affect the rights of the public on the state owned land because minimum safe line clearances above the land surface will be maintained at all times.

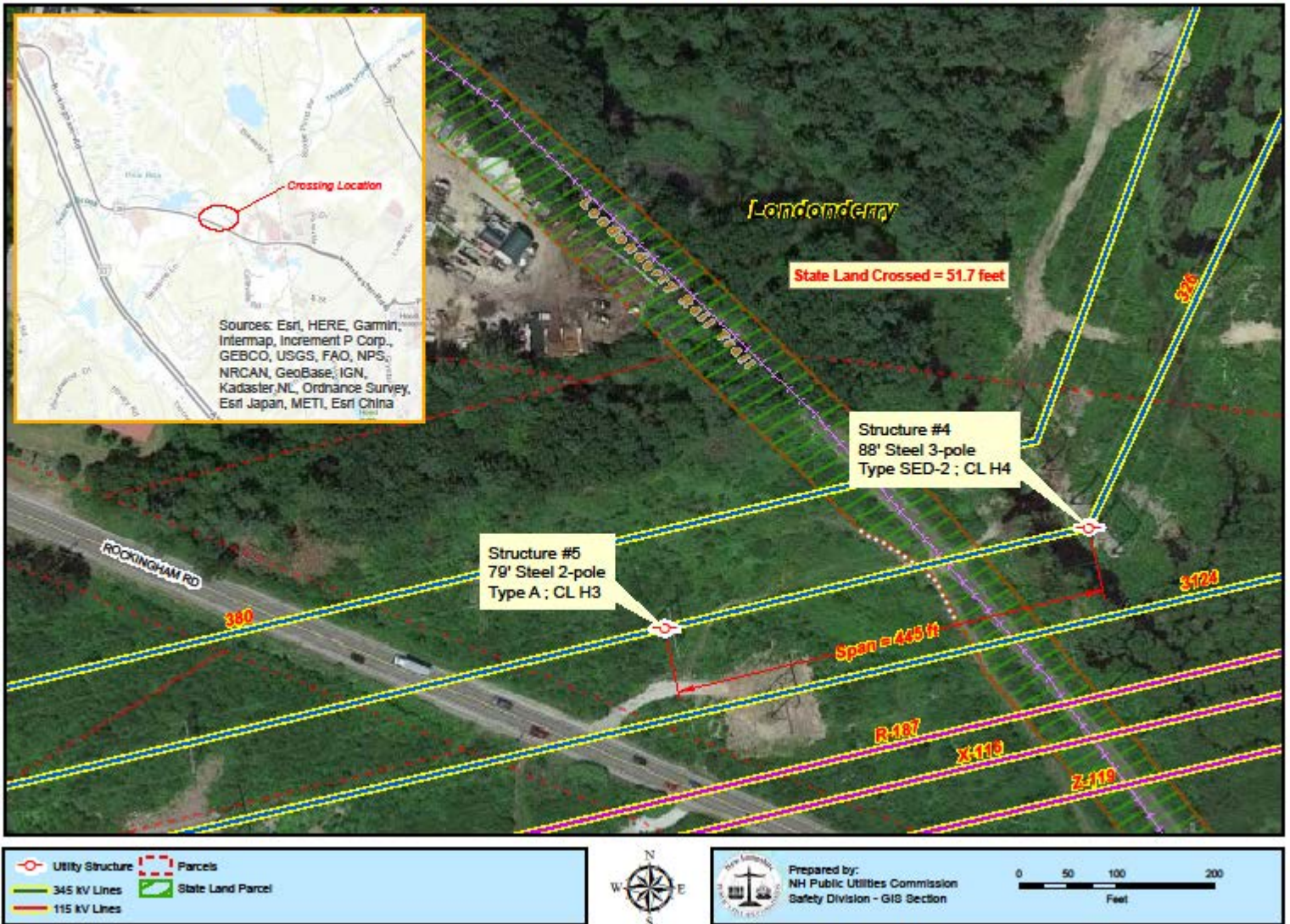
**Staff Recommendation:**

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

- 1) Find that the license ES requests in this docket may be exercised without substantially affecting the public rights in State owned land, which is 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 Londonderry, New Hampshire, as specified in the petition;
- 3) Issue an Order Nisi and orders for its publication.

Attachment

## NH State Land - NHDOT - DE 21-048 Eversource Crossing



**State owned Land** as shown above identified in the petition and engineering drawings as State of New Hampshire and located in the Town of Londonderry. The project will require the Commission to grant a license related to this project. The license will be for the 345 kV 326-transmission line from Structure #4 southwesterly to Structure #5. This crossing over the Londonderry Rail Trail spans approximately 445 feet with 51.7 feet crossing state owned land.

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