

STATE OF NEW HAMPSHIRE

Inter-Department Communication

DATE: May 20, 2021

AT (OFFICE): NHPUC

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

SUBJECT: Docket No. DE 21-081 Public Service New Hampshire d/b/a
Eversource Energy
Petition for Amended License to Construct and Maintain Electric Lines
Over and Across State Owned Land in Greenville, 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 April 22, 2021, Public Service New Hampshire d/b/a Eversource Energy (ES), filed a petition for an amended license pursuant to RSA 371:17 to construct, maintain and operate the Eversource 367 line, which is a three phase 345 kV transmission line, over State owned land in Merrimack.

On May 19, 2021, ES filed a subsequent petition to correct an error as identified by Safety Staff regarding dimensions for the State owned land span.

ES is continuing a maintenance project that includes replacement of two wood Structures #254 and #255 with weathered steel.

This crossing was previously licensed in Docket DE 20-066 pursuant to PUC Order 26,417, which licensed the replacement of the additional structures within this petition.

The existing three (3) conductors, one (1) fiber optical ground wire (OPGW), and one static wire will be transferred to the new steel structures. The OPGW and static wire will be vertically attached above the conductors.

The scope of this project begins in at Structure #254, which is approximately 1,971 feet west of Route 31 in Greenville along the Right-of-Way. The 367 Line then continues west to Structure #255.

Common to all structures noted in this petition, all conductors for the Line 367- 345 kV transmission line consist of (3) 850.8 kcmil ACSR 45/7 cables. The static wire will consist of (1) 7 #8 Alumoweld wire with (1) 48 Fiber OPGW. Both static wire and OPGW will be vertically attached above the conductors. Staff verified the computed sags with SAG 10 commercial software using inputs as stated in the petition. 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. Only 24.8 feet clearance is required by the NESC Table 232-1 for areas traversed by vehicles such as forest areas.

As shown in Exhibit 2, existing steel Structure #253 was constructed with (2)-88.0 ft. AGH Type A, CL H3 weathered steel poles. Structure #254 will be constructed of (2)-79.0 ft. AGH Type A, CL H1 weathered steel poles. 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 32.0 feet. The crossing between Structure #253 and #254 spans 600.5 feet of state-owned land.

As shown in ES Exhibit 3, Structure #255 is to be constructed with (3)-83.5 ft. AGH Type E, CL H3 weathered steel poles. The crossing between Structure #254 and #255 spans 495.7 feet of state-owned land with a clearance maintained at 40.1 feet.

As shown in ES Exhibit 4, Structure #256 was constructed with (2)-70.0 ft. AGH Type HF, weathered steel poles. This crossing creates a total span of 773.2 feet between Structures #255 and #256 with 427.8 feet with a clearance maintained at 32.1 feet spanning state-owned land. The total crossing span of 1,869.4 feet from Structures #253 to #256 will cross 1,524.0 feet of 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 Greenville.

The State owned land crossing span in Greenville was previously licensed. in Docket DE 20-066 pursuant to PUC Order 26,417.

ES asserts no environmental impact from this project crossing the state-owned land, but permits will be required from NH DES for work outside the state-owned land span.

4. Review of land ownership of proposed pole structures

In its petition, ES specifies that the replacement of the structures is over state owned land in Greenville, 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 existing wood structures with weathered steel structures and transfer existing conductors, static wire, and fiber OPGW and maintain a three-phase 345 kV transmission line designated as the 367 Line over and across state owned land in Greenville, New Hampshire. 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 Greenville. 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.

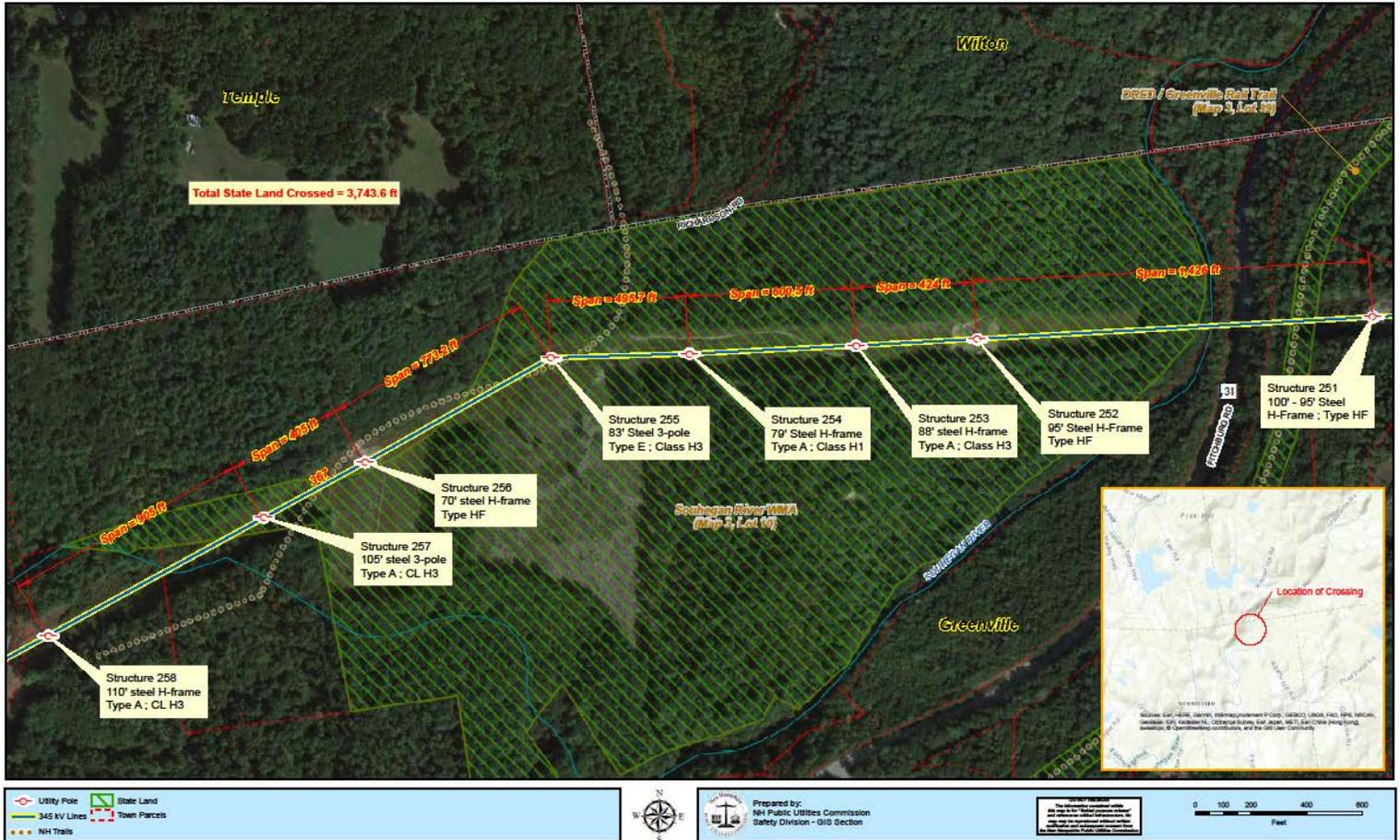
Staff Recommendation:

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 optical ground cables over and across the State owned land in Greenville, New Hampshire, as specified in the petition;
- 3) Issue an Order Nisi and orders for its publication.

Attachment

State Land (NH Fish and Game) - DE 21-081 EVERSOURCE Crossing



State owned Land as shown above identified in the petition and engineering drawings as State of New Hampshire and located in Greenville. The project will require the Commission to grant an amended license related to this project. The license will be for the Line 367, 345 kV transmission line from Structure #253 westerly to Structure #256. This crossing spans approximately 1869.4 feet with 1524.0 feet crossing state owned land.

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