

STATE OF NEW HAMPSHIRE

Intra-Department Communication

DATE: September 8, 2021

AT (OFFICE): NH Dept. of Energy

FROM: Kenneth Walsh *KGW*
Utility Analyst IV – Division of Enforcement

SUBJECT: Docket No. DE 21-118 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 Brentwood, New Hampshire
Division of Enforcement, **Safety Bureau Recommendation**

TO: Christopher Ellms, Jr., Deputy Commissioner, Department of Energy
Thomas Frantz, Director of Regulatory Division
Richard Chagnon, Regulatory Division
Lynn Fabrizio, Division of Enforcement
Randall Knepper, Division of Enforcement
Paul Kasper, Division of Enforcement

The Division of Enforcement'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 June 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 A126 Line, which is a three phase 115kV transmission line, over State owned land in Brentwood.

The State owned land was not previously licensed for unknown reasons to include the possibility the land may not have been owned by the State at the time of line construction.

This proposed project is to replace (7) wood structures with weathered steel. Existing (3) conductors and (2) static wires will be transferred with both being vertically attached above the conductors.

Common to all these noted structures, existing conductors will be transferred with (3) ACSR 477 26/7 kcmil conductors. Two existing shield wires will be transferred with (2) 7#8 Alumoweld with both being vertically attached above the conductors. The conductor cable clearance requirements were met using the National Electrical Safety Code (NESC) conditions at 285 deg F. for all crossings within this petition. This scenario was the governing condition, which yielded the greatest sag and lowest clearance. Only 20.1 feet clearance is required by the NESC Table 232-1 for other areas traversed by vehicles, such as cultivated, grazing, forest, and orchard lands, industrial sites, commercial sites, etc. The Safety Bureau verified the computed sags with SAG 10 commercial software using inputs as stated in the petition.

The scope of this project begins in Brentwood at Structure #204 located to the east where the A126 Line crosses Pine Road then heading westerly to end at Structure #212.

The land crossing spans 3,793.7 feet between Structures #204 and #212 with 3,010.7 feet spanning State owned land. See Attached Map.

The table provides the summary of this petition with all crossings to include structure numbers and types, spans, ES design criteria, and NESC compliance:

Division of Enforcement Summary Table

Eversource A126 Line - PUC State Land Crossings						
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)
204	42.7' wood 2 pole, T, CL	204-205	338.2	20.1	39.5	Y
205	56.5' steel 2 pole, T, CLH1					
206	65.5' steel 2 pole, T, CLH1	205-206	410.3	20.1	38.1	Y
207	65.5' steel 2 pole, T, CLH1	206-207	545.3	20.1	38.2	Y
208	52.0' steel 2 pole, T, CLH1	207-208	491.3	20.1	27.3	Y
209	56.5' steel 2 pole, T, CLH1	208-209	450.9	20.1	26.1	Y
210	65.5' steel 2 pole, T, CLH1	209-210	534.6	20.1	27.3	Y
211	52.0' steel 2 pole, T, CLH1	210-211	482.3	20.1	34.9	Y
212	61.0' steel 2 pole, T, CLH1	211-212	540.8	20.1	31.5	Y

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 these locations of the State owned land in Brentwood.

The State owned land crossing spans in Brentwood were not previously licensed.

ES asserts environmental impacts from this project will require permits from the NH Department of Environmental Services and that ES will obtain these before commencing work.

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 Brentwood, 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 crossings have been designed and will be re-constructed, maintained, and operated in accordance with the NESC C2-2012.

The Safety Bureau 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 steel structures, transfer existing conductors and static wires, and maintain a three-phase 115 kV transmission line designated as the A126 Line over and across state owned land in Brentwood, 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 Brentwood. 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 crossings.

The Safety Bureau 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 State owned land because minimum safe line clearances above the land surfaces will be maintained at all times.

The Safety Bureau Recommendation:

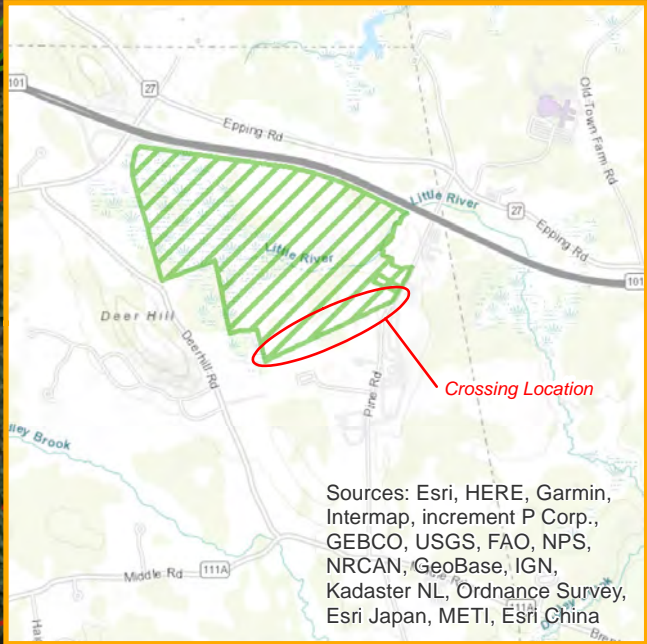
Based on the results of its review of the petition, its attachments, and all other supporting documents filed to this docket, the Safety Bureau recommends that the Department:

- 1) Find that the license ES requests 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 over and across the State owned land in Brentwood, New Hampshire, as specified in the petition;

- 3) Issue an Order Nisi and orders for its publication.

Attachment

State Land (Dept of Fish & Game) - DE 21-118 EVERSOURCE Crossing



State of NH - Dept of Fish and Game - Pine Rd Site consists of:
 Map 203 Lot 36
 Map 205 Lot 9
 Map 205 Lot 8

State of NH - Dept of Fish and Game - Pine Rd Site
 Map 203 Lot 36

Structure #204
 42.7' Wood 2-pole
 Type A ; CL 2

Structure #207
 66.5' Steel 2-pole
 Type T ; CL H1

Structure #206
 66.5' Steel 2-pole
 Type T ; CL H1

Structure #205
 56.5' Steel 2-pole
 Type T ; CL H1

Structure #208
 52' Steel 2-pole
 Type T ; CL H1

Structure #209
 56.5' Steel 2-pole
 Type T ; CL H1

Structure #210
 65.5' Steel 2-pole
 Type T ; CL H1

Structure #211
 52' Steel 2-pole
 Type T ; CL H1

Structure #212
 61' Steel 2-pole
 Type T ; CL H1

State Land crossed = 3,010.7 ft

Structures	Span (in feet)
204 to 205	338.2
205 to 206	410.3
206 to 207	545.3
207 to 208	491.3
208 to 209	450.9
209 to 210	534.6
210 to 211	482.3
211 to 212	540.8
Total Span	3,793.7

State owned Land as shown above identified in the petition and engineering drawings as State of New Hampshire and located in Brentwood. The project will require the Department to grant a license related to this project. The license will be for the 115 kV A126 transmission line from Structure #204 southwest to Structure #212. These crossings span 3,793.7 feet with 3,010.7 feet crossing state land.

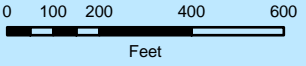
Utility Pole

State Land Parcel

115 kV Lines



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