

STATE OF NEW HAMPSHIRE

Intra-Department Communication

DATE: February 18, 2022

AT (OFFICE): NH Dept. of Energy

FROM: Michael Soucy MRS
Utility Analyst IV – Division of Enforcement

SUBJECT: CR 2022-003 Eversource Energy
Petition for License and License Amendments to Construct and Maintain
Electric Lines Over and Across State Owned Land in Brentwood, New
Hampshire.

Division of Enforcement, **Safety Bureau Recommendation**

TO: Jared Chicoine, Commissioner, Department of Energy
Christopher Ellms, Jr., Deputy Commissioner, Department of Energy

CC: Thomas Frantz, Director of Regulatory Support Division
Paul Kasper, Director, Enforcement Division
Elizabeth Nixon, Director-Electric, Regulatory Support Division

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

- Petition contents, replacement petition contents, and history.
- Applicable State statute.
- Review of the existing crossing(s) previously licensed by the PUC, if any.
- 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 February 10, 2022, Public Service New Hampshire d/b/a Eversource Energy (Eversource, or ES) filed a petition for a license pursuant to RSA 371:17 to construct and maintain the Eversource A126 Line, which is an existing 115kV transmission line that crosses public land in Brentwood, New Hampshire.

The A126 Line was constructed in 1975, however was not previously licensed either because the land was not in State ownership at that time or otherwise for reasons unknown. The scope of this project replaces structures 202, 203, and 204 will be located within 10' of the original structure location. The planned replacement of Structure 204 creates a minor increase in clearance height between Structures 204 and 205 (from 39.5' to 40.1'). Structure 205 was replaced as part of the span licensed under CR 2021-010 and therefore Structure 205 is also included in this petition. The A126 Line existing conductors consist of (3) phase conductors and (2) static wires, which will be unchanged in the course replacing the existing noted structures. It has been noted in the petition that the structures identified for replacement on the A126 that are subject to this petition have been mis-labeled in the field and are presently labeled A126, Structure 203, 202 and 201, respectively. These structures will be re-labeled as part of the planned maintenance project to Structures 204, 203 and 202, respectively, consistent with how the structures are described hereunder and in Exhibits 1, 2, and 3.

Common to all noted structures, existing conductors will be transferred with (3) ACSR 477kcmil 26/7 conductors. Two existing shield wires will be transferred with (2) 7#8 Alumoweld with both being vertically attached above the phase 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 at Structure #202 located in Exeter, A126 Line travels west into Brentwood, crossing state land as shown in Exhibit 3. A126 Line continues west in Brentwood and crosses Pine Road then continuing westerly to Structure #205.

The land crossing spans 1296.1 feet between Structures #202 and #205 with 686.5 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:

Dept. of Energy Safety Bureau Summary Table

| Eversource A1266 Line - 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) |
| 202 | 61' Type T, Weathering Steel Pole Tangent, H-Frame | 202 to 203 | 421.9 | 20.1 | 39.9 | Y |
| 203 | 65.5' Type T, Weathering Steel Pole Tangent, H-Frame | | | | | |
| 204 | 70' Type T, Weathering Steel Pole Tangent, H-Frame | 203 to 204 | 540.9 | 20.1 | 46.6 | Y |
| 205 | 6.5' Type T, Weathering Steel Pole Tangent, H-Frame | 204 to 205 | 333.3 | 20.1 | 40.1 | 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 department of energy 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 department of energy may prescribe. Every corporation and individual desiring to cross any public water or land for any purpose herein defined shall petition the department of energy 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. 2021, 91:260, eff. July 1, 2021.

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 span in Brentwood was not previously licensed.

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

4. Review of land ownership of proposed pole structures

In its petition, Eversource specifies that the unlicensed 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; and

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.

Eversource 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.

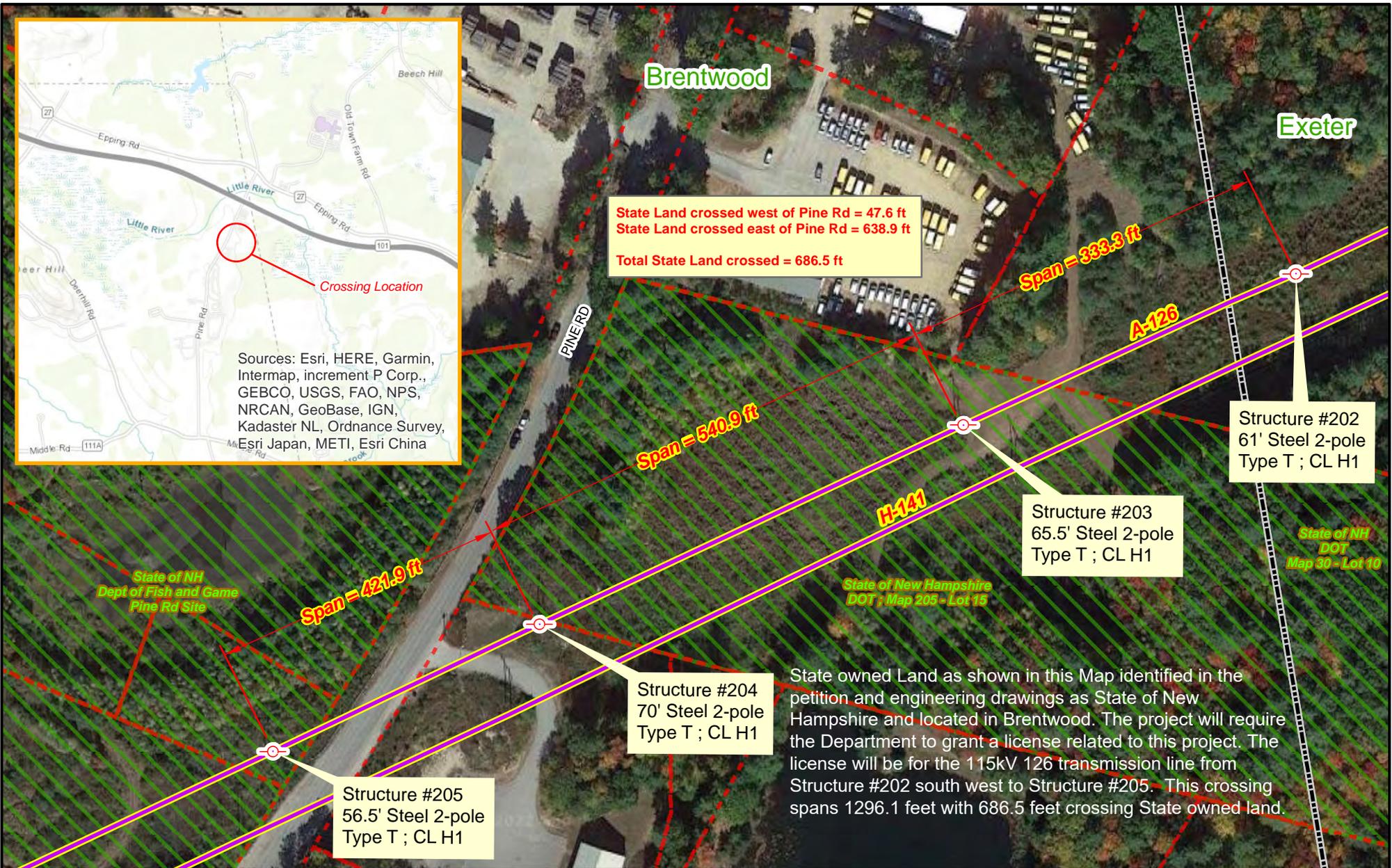
7. Safety Bureau Recommendation:

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

- 1) Find that the license Eversource requests in this docket may be exercised without substantially affecting the public rights in State owned land; and
- 2) Grant Eversource a license to construct, install, operate, and maintain electric lines and communication cables pursuant to RSA 371:17 and Puc 306.01, over and across State owned land in Brentwood, New Hampshire as specified in the petition.

Attachments

State Land (NHDOT) - CRE 2022-003 Eversource Crossing



Utility Structure
 Town Parcel
 115 kV Lines
 State Land Parcel



Prepared by:
 NH Department of Energy
 Enforcement Division
 Safety Bureau

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 Feet