

STATE OF NEW HAMPSHIRE

Intra-Department Communication

Date: September 29, 2023

At (Office): NH Dept. of Energy

From: Bryan J Flynn B J F
Utility Analyst IV – Enforcement Division

Subject: CRE 2023-024 Eversource Energy
Application for License to Construct and Maintain Electric Lines Over and
Across State-Owned Land in Croydon, New Hampshire

Staff 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 of Enforcement Division
Elizabeth Nixon, Director of Electric Regulatory Support Division
Andrew Harmon, Hearings Examiner, Enforcement Division

Review by the Enforcement Division of the above application consisted of the following elements:

- Application contents, revised application contents, and history.
- Applicable State statutes.
- Review of existing crossing(s) previously licensed by the State of New Hampshire, if any.
- Review of land ownership and 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
- Recommendations

1. Application Contents and History

On September 27, 2023, Eversource Energy (ES) submitted an application pursuant to RSA 371:17 to construct and maintain a portion of the K174 Line in Croydon, New Hampshire. The ES K174 Line is a 115 kV transmission line which crosses State-owned land, managed by the New Hampshire Department of Fish and Game, between Structures 74 to 104 in Croydon. ES requests that the Department of Energy (the Department) issue a license for the purpose of structure replacement work.

Through its ongoing-asset replacement inspection program, ES has determined that existing wood Structures 76, 77, 78, 79, and 80 require prompt replacement in order to continue to function safely and reliably. The existing structures will be replaced with weathering steel equivalents and located within 10' of current structure locations. The existing three conductors, OPGW, and shield wire will remain unchanged in the course of performing the structure replacements. Enforcement Division staff have reviewed the application, exhibits and all supporting documentation.

The location of the State-owned land crossing is depicted on the Overview Map submitted with the application by ES as exhibit 1 and a more detailed description is as follows:

The relevant State-owned land crossing span, located in Croydon, commences at Structure 75 and ends at Structure 81 and encompasses the replacement of Structures 76 to 80. Structure 75 is located approximately 875 feet northwest from where the K174 Line crosses Fletcher Road, which is approximately 2,500 feet southwest from the intersection of Fletcher Road and Brighton Road. The crossing extends approximately 2,445.7 feet northwest from Structure 75 to Structure 81.

- The proposed structure locations create a total span of 2,445.7 feet between Structure 75 and 81 with 2,445.7 feet crossing State-owned land.

The following table illustrates the structure and span details provided in the application, as well as required NESC clearance and the design clearance at the crossing span:

Eversource Energy K174 Line Crossing Proposed Design Details CRE 2023-024						
Structure Number	Structure Type	Measured Span	Distance (Feet)	Minimum NESC Table 232-1 Clearance (Feet)	NEP Design Clearance (Feet)	Complies with NESC 232-1 (Y/N)
76	Type T Steel	75-76	335.8	20.1	26	Y
77	Type T Steel	76-77	390.1	20.1	26	Y
78	Type T Steel	77-78	638.7	20.1	28.8	Y

Structure Number	Structure Type	Measured Span	Distance (Feet)	Minimum NESC Table 232-1 Clearance (Feet)	NEP Design Clearance (Feet)	Complies with NESC 232-1 (Y/N)
79	Type T Steel	78-79	348.4	20.1	40.2	Y
80	Type T Steel	79-80	406.2	20.1	28	Y
		80-81	326.5		27.8	

2. New Hampshire statute referenced in application (modified by NH House Bill 1258, August 22, 2022)

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, modify a previously licensed installation, or license a previously constructed installation, it shall apply to 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 apply to the department of energy for a license in the same manner prescribed for a public utility. The department of energy may condition any license issued under this paragraph in any manner necessary to assure that the license may be exercised without substantially affecting the public rights in public waters or state-owned lands. Using a non-adjudicative process, the department of energy may reject incomplete or improperly filed applications, and shall, also using non-adjudicative process, issue or deny the license within 90 days of receiving a complete application and all information subsequently requested of an applicant.

3. Review of existing license(s) and permissions previously granted by the State of New Hampshire, including additional permitting requirements, for these crossings over State-owned land in Croydon, New Hampshire.

The ES K174 Line was originally constructed in 1967 and the State-owned land crossing between Structures 74 to 104 was previously licensed under DE 20-119. Eversource is seeking to re-license the State-owned land crossing between Structures 75 to 81 for required maintenance in order to meet the requirements for reasonable service to the public.

The application states that a New Hampshire Department of Environmental Services (NHDES) wetland statutory permit by notification (SPN) will be required and obtained prior to commencement of the structure replacement work.

4. Review of land ownership at proposed pole structures

As stated in the application by Eversource, the structure replacement work will be accomplished within existing right-of-way easements thereby mitigating impacts and concerns of property owners affected by the project scope.

5. Review of National Electric Safety Code (NESC) requirements as described in PUC 300

Eversource shall own, maintain, and operate the K174 line with clearances over State-owned land at a height of no less than what is required by the 2012 National Electric Safety Code (NESC), which is 20.1 feet for 115 kV wires over other areas traversed by vehicles, such as cultivated, grazing, forest and orchard lands, industrial sites, commercial sites, etc. The actual minimum height over the State-owned land is depicted on Exhibit 2 of the submitted application and exceeds the minimum requirement.

Eversource proposes to install Type T steel, two-pole structures with steel cross-bracing. The finished heights of the structures will range from 50.7 feet to 61.0 feet. Line supporting structures are required to conform to strength and loading specifications described in NESC rule 252, 260, and 261.

Enforcement Division staff reviewed the specifications of the proposed replacement work and proposed structure locations and found them to be in conformance with N.H. admin. Rule PUC 306 and 2012 NESC rules. The minimum clearance requirements with respect to ground level and design conditions at 285 °F have been met. Staff verified the depicted sag clearances using Sag10 commercial software with the data inputs provided in the application.

6. Review of public need and impact

The K147 Line is a 115 kV transmission line that supplies electricity between Ascutney Substation in Weathersfield, VT and North Road Substation in Sunapee, NH. The line contributes to the interconnectivity of the northeast power grid.

Eversource declares that the license, if granted, may be exercised without substantially affecting the use and enjoyment of State-owned land because safe clearances will be maintained at all times. The Enforcement Division's review of design specifications verified that minimum safe clearances above NH Fish and Game lands will be maintained during and after construction; and therefore, determines that public use and enjoyment of said land will not be diminished in any respect as a result of the proposed project.

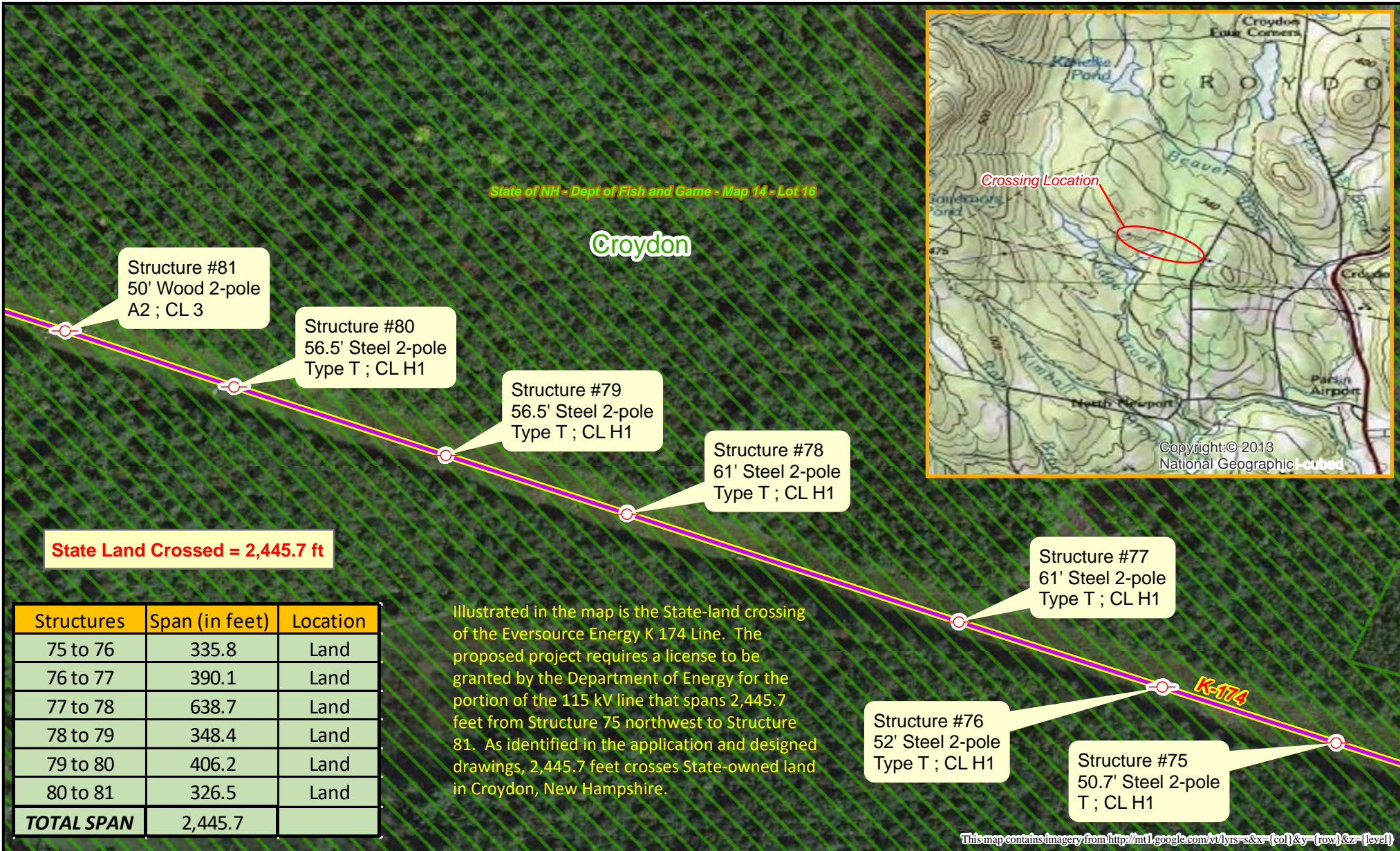
7. Enforcement Division Recommendations

Based on the results of its review of the application, attachments, and all other supporting documents, the Enforcement Division recommends that the Department:

1. Find that the license Eversource requests in the application may be exercised without substantially affecting public rights on State-owned land; and
 2. Grant Eversource a license to construct and maintain electric lines pursuant to RSA 371:17 and PUC 306.01, over and across State-owned land in Croydon, New Hampshire, as specified in the application.
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Attachment:

State Land (NH Fish & Game) - CRE 2023-024 Eversource Crossing



Utility Structure
 State Land Parcel

115 kV Line



Prepared by:
NH Department of Energy
Enforcement Division

