

STATE OF NEW HAMPSHIRE

Inter-Department Communication

DATE: April 10, 2020
AT (OFFICE): NHPUC

FROM: Paul Kasper
Assistant Director – Safety Division

SUBJECT: Docket No. DE 20-003 Public Service New Hampshire d/b/a
Eversource Energy
Petition for a License to Construct and Maintain Electric Lines Over and
across the Ammonoosuc River and Land Owned by the State in the
Town of Lisbon, New Hampshire
Staff Recommendation

TO: Debra Howland, Executive Director
Thomas Frantz, Director, Electric Division
Richard Chagnon, Assistant Director, Electric Division
Lynn Fabrizio, Staff Attorney

CC: Randall Knepper, Director, Safety Division

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) not 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 January 10, 2019, Public Service New Hampshire d/b/a Eversource Energy (ES), filed a petition pursuant to RSA 371:17 for a license to maintain and operate the Eversource 348X2 line, which is a 34.5 kV distribution line. This was an ES project that rebuilt (2) two structures on the existing 348X2 distribution line after a field inspection identified its need for replacement, and had not been previously licensed. No conductors or neutral wire were replaced in the project. All wires were transferred from existing structures to new structures replaced at the same locations. The existing Ammonoosuc River crossing had not been previously licensed by the Commission.

The 348X2 line crossing of the State's land parcel in the Town of Lisbon, New Hampshire had not been previously licensed, as this parcel was in private ownership when the 348X2 Line was originally constructed, and no Commission license was required. These structure replacements and repair were part of a field inspection report, which identified that the reliability project was necessary for the 348X2 Line to continue to meet current as well as future projected electricity demands. See a detailed NHPUC Safety Division map/schematic in the Attachment of this recommendation.

The State's land parcel comprises a portion of the Ammonosuc Rail Trail situated west of N. Main Street in Lisbon, and is designated as Tax Map R18, Lot 6, on the Town of Lisbon's tax records. The B&M railroad previously provided a license for the railroad ROW crossing in FDA-175.

In ES Exhibit #2 Structure # 393 was constructed with 3-80 ft. OAL Type 10.638 steel poles The structures have conductors for the 348X2 Line consisting of (3) 266.8 kmil ACSR 26/7 cables and (1) 336 ACSR 18/1 stranding neutral wire. The neutral wire will be sagged using 32 degree F conditions at a maximum tension of 6,680 pounds. 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 neutral wire to the water surface will be maintained at (32.5 feet). Staff verified the computed sags with SAG 10 commercial software using inputs as stated in the petition. Only 28 ft. is required by the NESC Table 232-1 above water.

Structure # 394 was constructed with 3-50 ft. OAL Type DA steel poles The structure has conductors for the 348X2 Line consisting of (3) 266.8 kmil ACSR 26/7 cables and (1) 336 ACSR 18/1 stranding neutral wire.

The water clearance was taken from the projected 100 year flood levels. This is more conservative than the 10 year flood levels allowed by the NESC (note 12 to Table 232-i). ES uses floodwater elevations for the Ammonoosuc River in Grafton County that are identified on FEMA flood map #33009C0235E. The 100-year flood elevation for the river in this location is approximately 589 feet, and is based on the North American Vertical Datum of 1988 (NAVD88). The Safety Division verified the 589-foot flood level from the FEMA flood 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 Ammonoosuc River

This public water crossing license application is part of a reliability replacement Project due to a field inspection report on the 348X2 Line for ES and had not been previously licensed by the Commission.

The Ammonoosuc River, From the White Mountain National Forest boundary Near Lower Falls in Carroll to the confluence with the Connecticut River in Haverhill is listed under the category "Public Rivers And Streams" in the Official List of Public Waters (OLPW). under the category "List of freshwater Public Rivers and streams". The entire list of public waters can be accessed through the following web link:

<http://des.nh.gov/organization/commissioner/pip/publications/wd/documents/olpw.pdf>

A New Hampshire Department of Environmental Services (NHDES) Shoreland Permit by Notification application was not required for construction activities in the vicinity of the Ammonoosuc River.

The U.S. Army Corps of Engineers (ACOE) does not regulate the subject portion of the Ammonoosuc River as a federal-designated navigable water. A crossing permit from the ACOE was not required.

ES asserts in the petition that the existing crossing will be exercised without substantially affecting the rights of the public in the public waters of the Ammonoosuc River. Minimum safe line clearances above the river surface and affected shorelines will be maintained at all times. The use and enjoyment of the river by the public will not be diminished in any material respect as a result of the overhead line crossing.

Review of land ownership of proposed pole structures

In its petition, ES specifies that the re-construction of this land crossing is on the State of New Hampshire owned land in the Town of Lisbon, New Hampshire

Review of NESC code requirements as described in Puc 300

N.H. Code of Administrative Rules Puc 306 requires:

each utility shall 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 this 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 had been designed and re-constructed, maintained and operated in accordance with 2012 National Electrical Safety Code C2-2012.

Safety Division Staff reviewed the specifications related to the design and re-construction of this crossing project as provided in the petition, the attachments, and all supplemental support documents, and found them to be in conformance with the applicable sections of NESC code C2-2012 and Puc 300.

Review of public need and public impact

In order to meet the reasonable requirements of electric service to the public, ES has re-constructed and maintained a three-phase 34.5 kV distribution line, designated as the 348X2 Line and neutral wire over and across the Ammonoosuc River and over and across Land owned by the State in the Town of Lisbon New Hampshire. This distribution line is an integral part of ES’s electric distribution system in this area.

ES asserts in the petition that the proposed licenses for these crossings may be exercised without substantially affecting the rights of the public in the State lands in the Town of Lisbon and without substantially affecting the rights of the public in the public

waters of the Ammonoosuc River. Minimum safe line clearances above the river surface and affected shorelines will be maintained at all times. The use and of which is the subject of this petition. Minimum safe line clearances above the land surfaces will be maintained at all times. The use and enjoyment by the public of these lands will not be diminished in any material respect as a result of the modification and replacement of the existing overhead line crossings.

This project did not require use and occupancy agreements be in place prior to construction of this crossing from the New Hampshire Department of Transportation.

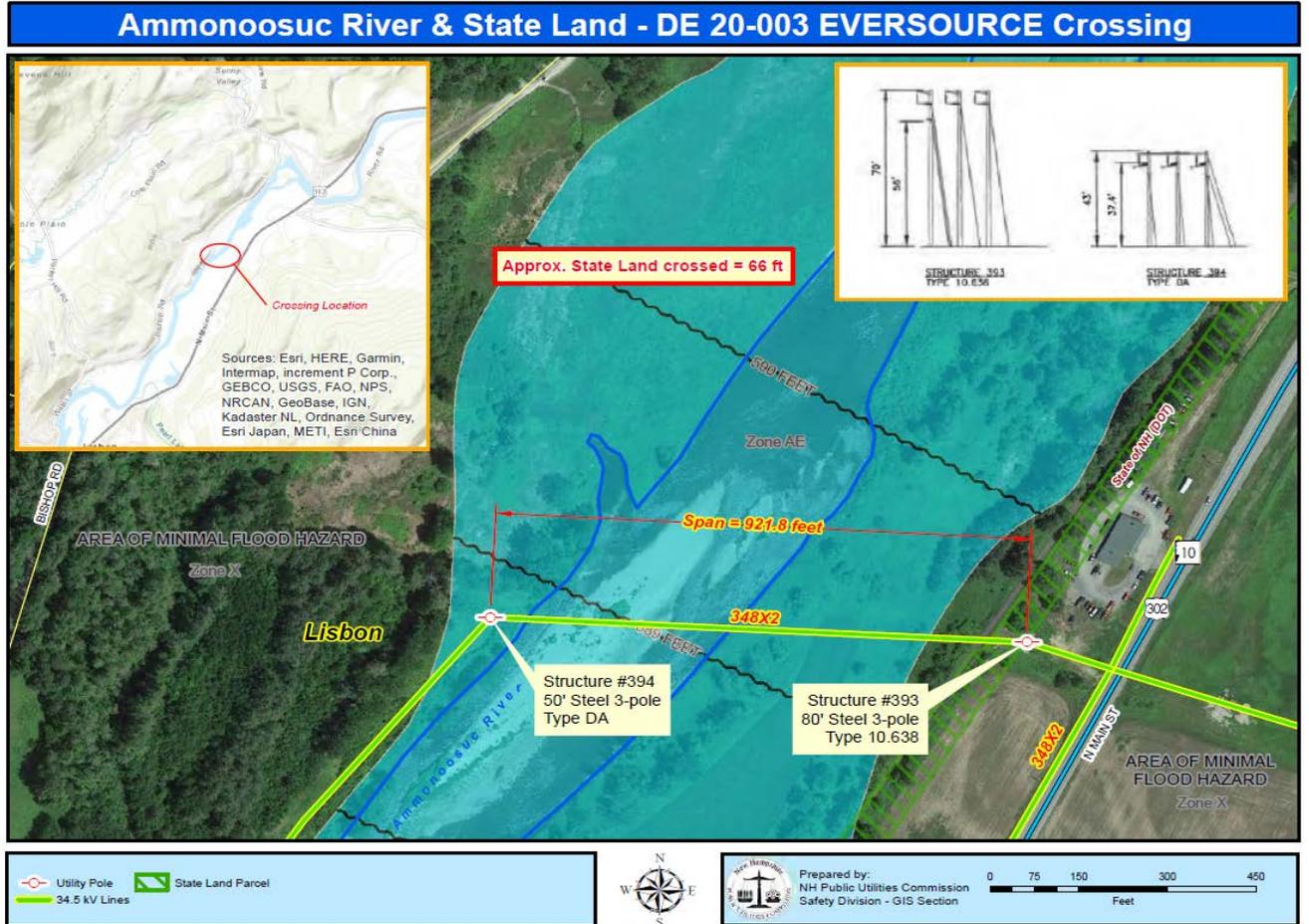
Safety Division Staff concludes the impact to the public will be de minimis and not measurable. The crossings do not appear to affect the rights of the public in the State lands because minimum safe line clearances above the land surface will be maintained at all times.

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 licenses ES requests in this docket may be exercised without substantially affecting the public rights in State lands which are the subject of the petition;
- 2) Grant ES a license to operate and maintain electric lines, including neutral over and across the State lands in the Town of Lisbon New Hampshire, as specified in the petition; and
- 3) Find that the license ES requests in this docket may be exercised without substantially affecting the public rights in the public waters which are the subject of the petition;
- 4) Grant ES a license to operate and maintain electric lines, including neutral over and across the public waters of the Ammonoosuc River, in the Town of Lisbon, New Hampshire, as specified in the petition;
- 5) Issue an Order Nisi and orders for its publication.

Attachment



Public Land that is State owned is shown above as green hash marks identified in the petition and engineering drawings as State of New Hampshire. The parcel is located in the Town of Lisbon. The project will require the Commission to grant a public land crossing license and grant a water crossing license related to this project. The license will be for the 34.5 kV 348X2 distribution line from Structure # 393 to Structure # 394 crossing approximately 66 feet of State owned land in the Town of Lisbon and creating a total span between structures of 921.8 feet across the Ammonoosuc River in the Town of Lisbon, NH.

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