

NHPUC BAUG'17PM2:28

STATE OF NEW HAMPSHIRE

Inter-Department Communication

DATE: August 8, 2017
AT (OFFICE): NHPUC

FROM: Robert Wyatt, Assistant Director, Safety Division *RJW*

SUBJECT: Docket No. DE 17-080 NHEC, Bear Island in Meredith, NH
Lake Winnepesaukee Crossing Petition for a License to Construct and
Maintain 7.2kV Cable beneath State Waters and Lands
Staff Recommendation

TO: Debra Howland, Executive Director
Tom Frantz, Director, Electric Division
Randy Knepper, Director, Safety Division
David Shulock, Hearings Examiner, Legal Division
Les Stachow, Assistant Director, Electric Division

Commission Safety Division's review of the above petition consisted of the following elements:

- Petition contents, testimony, project overview and history
- Regulatory Requirements
- Private Property, Property Rights
- Public Interest
- Conclusions
- Recommendations

A. Petition Contents, Project Overview and History

On May 12, 2017, New Hampshire Electric Coop (NHEC) filed a petition, pursuant to RSA 371:17 and RSA 371:20, to re-construct and maintain an electric cable and conduit crossing under the public waters of Lake Winnepesaukee in the Town of Meredith, New Hampshire. According to the petition, the re-constructed electrical cable and conduit are necessary to maintain electric distribution service to 75 member residences located on Bear Island plus an additional 83 member residences on six other nearby islands. The crossing will replace an existing cable that has a deteriorating neutral line. NHEC is concerned that if the cable is not replaced the deterioration will cause voltage problems in the future.

A new electric cable and conduit will replace the existing cable at NHEC pole #115/186 located on Town of Meredith property¹ off Cattle Landing Road. From this location, the cable and conduit will travel approximately forty feet underground to the lake shore,

¹ Tax Map U33, Lot 25. See Exhibits A and B from the Company's Petition, filed on May 12, 2017.

continuing on an east-northeast trajectory for approximately 1,785 feet underneath Lake Winnepesaukee, coming back onshore at Bear Island, onto property owned by Shiela T. Gregg². The cable and conduit will continue underground on Bear Island for approximately 200 feet from where it comes onshore, terminating at riser pole #11525/33³. Specifically, the project plans are as follows:

- The new underground electric line will begin at existing NHEC Pole #115/186 located on town-owned property in Meredith, off Cattle Landing Road (re. Meredith Tax Map U33, Lot 25 and NHEC Petition, Exhibit A).
- Existing NHEC Pole #115/186 is approximately 40 feet from the shore of Lake Winnepesaukee.
- The 7,200 volt submarine cable, using 4-inch Schedule 80 PVC conduit with 4-inch, 90°, galvanized steel sweeps will extend approximately 40 feet from NHEC Pole #115/186 in a trench approximately 36-40 inches deep to the shore of Lake Winnepesaukee.
- The installation process will extend below the lake bed using shallow trenching and direct burial of the cable and conduit protected with a minimum of two ASTM C39-72 concrete covers to a point where the underwater depth is 6 feet at mean high water, per NHEC construction standard IUSUB.
- At that point the cable will exit the conduit and continue for a distance of approximately 1,550 feet on the lake floor to a similar conduit leading the cable to the shore line of the Sheila T. Gregg property (Meredith Tax Map 106, Lot 7, on the most westerly side of Bear Island).
- The cable will continue underground for approximately 200 feet to NHEC riser pole #11525/33 where the line will be connected cable that provides service to 75 residences on Bear Island and an additional 83 residences on six additional islands⁴ in proximity to Bear Island.
- In response to Staff Data Request 1-1, dated July 18, 2017, NHEC clarified the total distance from NHEC Pole #115/186 to NHEC pole #11525/33 will be approximately 1,785 feet. Subtracting the approximate 40 foot length on Town of Meredith property and the approximate 200 foot length on the Bear Island property, the underwater portion of this cable will span a distance of approximately 1,550 feet⁵.

NHEC will maintain ownership of the cable and will be responsible for its maintenance.

B. Regulatory Requirements

² Meredith Tax Map I06, Lot 7 and joint pole license, as recorded in Town of Meredith records on October 30, 1941.

³ Meredith Tax Map I06, Lot 7 and joint pole license, as recorded in Town of Meredith records on October 30, 1941. See Petition Exhibits A and C.

⁴ The six additional islands receiving electric service from the existing NHEC distribution circuit extending from Bear Island, are Mark Island, Mink Island, Jolly Island, Dollar Island, Birch Island and Steamboat Island.

⁵ See Staff Attachment – 1.

As defined in RSA 371:17, a license is required to place utility service facilities under or across Lake Winnepesaukee, as is the case with any other New Hampshire public waters of more than 10 acres. Lake Winnepesaukee is listed on the Department of Environmental Services Water Division's official list of Public Waters.

NHEC asserts that in order to meet the reasonable requirements of service to the public, it is necessary that the Company re-construct the distribution line NHEC pole #115/186 on town-owned property in Meredith, crossing under Lake Winnepesaukee to Bear Island.

The petition also included copies of the two Wetlands and Non-Site Specific Permits as issued by the NH Department of Environmental Services (DES). Copies of the DES permits were filed with the petition as Exhibit D (Meredith Tax Map U33, Lot 25) and Exhibit E (Meredith Tax Map I06, Lot 7). These two Wetlands and Non-Site Specific Permits authorize the temporary impacts to onshore and beneath the lake bed to facilitate construction. Copies of the two DES permits were issued on May 7, 2017 and will expire on May 7, 2022.

C. Private Property, Property Rights

NHEC will use the existing right of way from a pole license between NHEC and the Town of Meredith to access the town-owned property, off Cattle Landing Road (re. Petition, Exhibit B). NHEC will also use the existing right of way from an easement for access to the Gregg property on Bear Island (re. Petition, Exhibit C). The pole license and easement continue to be necessary legal documents in order for NHEC to be able to excavate, install and maintain the electric cable and conduit within the agreed upon project areas. NHEC, and its contractors, will be required to comply with all the terms of these agreements.

D. Public Interest

In its petition NHEC asserts the electric power cable neutral line currently serving Bear Island has deteriorated and needs to be replaced. The petition states that in order to meet the reasonable requirements of service to the public, it is necessary that the NHEC approved contractor re-construct a distribution line to under Lake Winnepesaukee from town-owned property in Meredith, at Cattle Landing, to Bear Island.

In its petition NHEC asserts the design, construction and operation of the new line will be in compliance with the National Electric Safety Code.

When the project is finished, the electric cable and conduit will be buried underground as it extends from the shore of the Town-owned property off Cattle Landing Road to a depth of 36-40 inches where the shielded submarine cable will travel along the lake bed to a similarly constructed conduit emerging from the lake onto the Sheila T. Gregg property on Bear Island.

E. Conclusions

The proposed facilities are required to meet the reasonable requirements of NHEC to provide the necessary electric service to 158 member residences on Bear Island and six surrounding islands.

In response to a Staff Data Request, NHEC affirmed that approval of the license to cross public waters, necessary to complete the proposed re-construction project, may be exercised without substantially affecting the public rights in said waters. NHEC is not aware of any public rights issues with the existing line, which has been in place for 43 years. The reconstructed line will be in the same location.

In testimony supporting its petition, NHEC states that the proposed electric cable and related conduit facilities will be in compliance with the National Electric Safety Code. Lastly, NHEC affirms that it has successfully used this type of installation, with the submarine, aluminum conductor, size 1/0, Triplex insulated cable and conduits in over 50 similar installations.

F. Recommendations

Staff recommends approval of NHEC's petition for a license to re-construct and maintain cable and conduit beneath public waters (Town of Meredith property at Cattle Landing to Bear Island, Lake Winnepesaukee) in the Town of Meredith, New Hampshire, with the following conditions:

1. The Commission should require that any future alterations to the proposed electric facilities meet the applicable sections of the National Electric Safety Code in effect at the time of the alteration; and
2. That requests for such alterations be submitted to the Commission for its consideration at least 60 days prior to the start of construction.

Lake Winnepesaukee (Bear Island) - DE 17-080 NHEC Crossing



SERVICE LIST - EMAIL ADDRESSES - DOCKET RELATED

Pursuant to N.H. Admin Rule Puc 203.11 (a) (1): Serve an electronic copy on each person identified on the service list.

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FILING INSTRUCTIONS:

- a) Pursuant to N.H. Admin Rule Puc 203.02 (a), with the exception of Discovery, file 7 copies, as well as an electronic copy, of all documents including cover letter with:**
- DEBRA A HOWLAND
EXECUTIVE DIRECTOR
NHPUC
21 S. FRUIT ST, SUITE 10
CONCORD NH 03301-2429
- b) Serve an electronic copy with each person identified on the Commission's service list and with the Office of Consumer Advocate.**
- c) Serve a written copy on each person on the service list not able to receive electronic mail.**