

STATE OF NEW HAMPSHIRE

Inter-Department Communication



DATE: 5 April 2013
AT (OFFICE): NHPUC

FROM:  Tom Frantz – Director, Electric Division

SUBJECT: DE 12-311; RSA 317:17 Petition by New Hampshire Electric Cooperative for License to Cross Public Waters

TO: Chair Ignatius and Commissioners Harrington and Scott

On October 23, 2012, the New Hampshire Electric Cooperative, Inc. (NHEC) filed a petition with the Commission under RSA 371:17 to construct, operate and maintain electric cables and conduit under and across Lake Winnepesaukee in the Town of Moultonborough, NH. As part of its petition, NHEC included the pre-filed testimony of Dean Benton, Plant Supervisor with NHEC.

The proposed project would provide electrical service to a residence located on Round Island in Lake Winnepesaukee. NHEC states that without the service, the residence will not receive electric service. The service would run underground from a NHEC pole located on Big Goodwin Island in Moultonborough for 85 feet to the shore line of Lake Winnepesaukee and then continue underneath Lake Winnepesaukee for approximately 1,750 feet to a new concrete vault on Round Island. Construction will be done by a firm approved by NHEC and with experience doing construction projects for NHEC. NHEC will inspect the installation prior to energizing the line. NHEC will then become the owner of the line and take over maintenance and repair of the line.

Staff employed the Accion Group Inc. (Accion) to review NHEC's petition. Accion filed an electronic memo of its review of NHEC's petition with Staff on December 19, 2012. Accion stated that "[T]he proposed facilities as proposed should be in conformance with the National Electrical Safety Code C2-2012, however, NHEC does not make such a definitive statement." Accion further stated that it believes the facilities are needed to meet the reasonable requirements to provide reliable electrical service to the public on Round Island. Accion further goes on to recommend that the Commission approve the NHEC petition for license to relocate, reconstruct and maintain the electric cable and conduit under and across Lake Winnepesaukee in the Town of Moultonborough; however, Accion states that approval should be conditional and lists four conditions as part of approving NHEC's petition.

Based on the recommendation of Accion and Staff's review of the filing, Staff recommends that the Commission grant NHEC's petition with the conditions stated in Accion's report. I have attached Accion's report to this memo.

Please contact me if you have any questions or would like to discuss this matter.



**REPORT ON ADEQUACY OF
NEW HAMPSHIRE ELECTRIC COOPERATIVE'S PETITION FOR LICENCE
FOR ELECTRICAL FACILITIES UNDER AND ACROSS PUBLIC WATERS OF
LAKE WINNIPESAUKEE IN THE TOWN OF MOULTONBOROUGH, NEW
HAMPSHIRE**

DOCKET DE 12-311

December 19, 2012

Submitted by:

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Accion's review of the subject petition consisted of the following elements:

- Petition contents and history
- Review of public need and public impact, including applicability of other state regulations
- Conclusions
- Recommendations.

1. Petition Contents and History

On October 23, 2012, New Hampshire Electric Cooperative (NHEC) filed a petition to construct, operate, and maintain electric cables and conduits under and across the public waters of Lake Winnepesaukee in Moultonborough, New Hampshire (Petition). The new facilities will consist of a 7.2kV submarine 1/0 aluminum cable constructed from Big Goodwin Island in Moultonborough, New Hampshire to feed the single residence on Round Island in Moultonborough, New Hampshire, that currently does not have electrical service.

More specifically, the project begins on the property of Harold D. and Mal T. Merrill and David A. and Suzanne M. Maybee on Big Goodwin Island in Moultonborough, New Hampshire, at NHEC Pole #14409/20.3 and:

Traverses underground and in conduit for a distance of approximately 85 feet to the shore of Lake Winnepesaukee, traverses approximately 360 feet on the lake bed and covered with concrete covers, and then traverses approximately 1390 feet on the lake bed and underground and in conduit to a new concrete electrical vault, that will be constructed on the property of Linden G. North and Kelly A. Keenan on Round Island, in Moultonborough, New Hampshire. Secondary electrical service will be provided at 120/240 volts to the single residence.

All underground sections will be buried to a depth of 3 feet – 0 inches, will extend from the shore line on the lake bed in Schedule #80 PVC conduit until a water depth of 6 feet – 0 inches from the water line (defined as mean low water table) can be achieved per NHEC Construction Standard IUSUB (Petition Exhibit G). In addition, a minimum of two concrete cable covers will be installed at every shoreline as described in NHEC Construction Standard U7-6B (Petition Exhibit H).



NHEC describes conduit entering a typical body of water in its Construction Standard URD 1W-1(Petition Exhibit I).

The NHEC states that overhead facilities were considered for the project, but that overhead facilities are not feasible due to the distances involved.

NHEC also states that all facilities will be constructed and maintained to meet the National Electrical Safety Code.

Additionally, the NHEC states that it has the expertise to design, construct, operate, and maintain the proposed facilities as it currently maintains over 50 similar installations in its service territory.

2. Review of Public Need and Public Impact

NHEC states that there are no existing facilities that can provide the requested electrical service. NHEC further states that an underwater crossing is the only feasible alternative to provide the requested electrical service, due to the distance between the facility terminals.

A license is required to place electrical facilities under and across Lake Winnepesaukee as that body of water is public waters as defined in RSA 371:17, and is also listed on the Department of Environmental Service Water Division's Official List of Public Waters as revised March 1, 2011.

NHEC requires easements to facilitate the new construction on Big Goodwin Island and Round Island in Moultonborough, New Hampshire, and has provided same as Petition Exhibits D and E respectively.

NHEC requires Wetland and Non-Site Specific Permits from the Department of Environmental Services for the new construction, and has provided approved Wetland and Non-Site Specific Permits with conditions on Big Goodwin Island (Permit #2012-01909) and Round Island (Permit # 2012-00056) in Moultonborough, New Hampshire, and has provided same as Petition Exhibits A and B respectively.

3. Conclusions

The proposed facilities are required to meet the reasonable requirements to provide reliable electrical service to the public on Round Island.

The proposed facilities, as proposed, should be in conformance with the National Electrical Safety Code C2-2012, however the NHEC does not make such a definitive statement.

4. Recommendation

Accion recommends the Commission approve the NHEC petition for a license to construct, operate, and maintain electric lines under and across Lake Winnepesaukee in the Town of Moultonborough, New Hampshire, with the following conditions.

- a) The Commission should require that the proposed construction be done in conformance with applicable sections of the National Electrical Safety Code C2-2012.
- b) The Commission should require that the NHEC operate and maintain the proposed facilities to the National Electrical Code C2-2012.
- c) The Commission should require that any future alterations to the proposed facilities meet the then-existing provisions of the National Electrical safety Code, and that requests for such alterations be submitted to the Commission for its consideration at least 60 days prior to the commencement of construction.
- d) That conformance to the conditions imposed in the Department of Environmental Service's Wetland and Non-Site Specific Permits contained in Petition Exhibits A and B is required.