

**DE 09-277**

**PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE**

**Petition for License to Construct and Maintain Electric Lines, a Static Wire and/or a Fiber Optic Communications Cable Over and Across the Public Waters of the Bean River, North River, and Little River in Nottingham, the Oyster River in Barrington, and the Dube Brook and Oyster River in Lee**

**Order *Nisi* Granting License**

**ORDER NO. 25,073**

**February 19, 2010**

On December 23, 2009, Public Service Company of New Hampshire (PSNH) filed a petition pursuant to RSA 371:17 for a license to construct and maintain electric, static, and/or a fiber optic ground wire communications (OPGW) lines at six locations. The lines will cross the Bean River, North River and Little River in Nottingham, Oyster River in Barrington, and Dube Brook and Oyster River in Lee. PSNH stated that the license is needed to rebuild and increase the capacity of the 115 kilovolt (kV) line, known as the L-175 line, after the installation of a second 345/115 kV autotransformer at the Deerfield Substation in Deerfield. PSNH said that the new installations and crossings are necessary to relieve an overload on the L-175 line between the Deerfield and Madbury substations and to serve load growth in the seacoast area. According to PSNH, the rebuild of the L-175 line and the six new crossings will allow PSNH to meet the reasonable requirements of service to the public in that area of New Hampshire.

In support of its petition, PSNH submitted related figures, tables, and exhibits identified as follows: construction detail drawing depicting the construction specifications of the proposed single wood pole tangent structures (Figure 1); construction detail drawing depicting the construction specifications of the proposed H frame tangent structures (Figure 2); a table that

correlates existing crossing locations with the crossings described in the instant petition (Table 1); appendices describing the design conditions of the six proposed crossings (Appendices, A, B, C, D, E, and F); geographic maps depicting the locations of the six proposed crossings (Exhibits 1, 3, 5, 7, 9, and 11); and plan and profile drawings depicting the locations and projected elevations of the six proposed crossings (Exhibits 2, 4, 6, 8, 10, and 12). PSNH stated that, through oversight or misunderstanding about the navigability of the crossed waters, none of these crossings were licensed at the time of original construction. PSNH filed additional information as requested by Staff's consultant on January 8, 2010.

PSNH said that it owns easements of at least 295 feet in width on both sides of the public water bodies at all of the proposed crossing locations and that each of the crossings will be constructed within the limits of those easements. According to PSNH, the construction of the crossings will consist of either single pole laminated wood tangent structures (Type WT1), or two pole laminated wood H-frame tangent structures and will be constructed to National Electrical Safety Code (NESC) Grade B construction requirements.

The three phase conductors to be installed will be 1590 MCM 45/7 ACSR conductors, constructed in either a vertical or horizontal configuration as described above. The static wire will be a single 19 #10 Alumoweld conductor and will be bracket mounted on the structures and poles. The OPGW communication cable is a 24-strand fiber optic cable and will be bracket mounted on the structures and poles in the same manner as the static wire.

PSNH investigated a multitude of weather and loading conditions for its design. Specifically, the Company investigated the NESC American National Standards Institute (ANSI) C2-2007 Heavy Load Conditions (0 degrees F, 4 pounds per square foot wind loading, and ½

inch radial ice), minus 20 degrees F ambient temperature, and 285 degrees F conductor temperature. PSNH used these design conditions to determine the minimum clearance of the conductors to the water surfaces of the crossings and to land surfaces. To determine the minimum distances between the phase conductors, the static wire, and the OPGW communication cable, PSNH assumed the phase conductors were at 30 degrees F with no ice, while the static wire and the fiber optic conductors were at 30 degrees F and an extreme ice loading of one inch radial ice. According to the PSNH, all phase and neutral conductors will be sagged to maintain or exceed NESC ANSI C2-2007 required clearances under the most adverse conditions investigated.

PSNH used the 100-year flood levels contained in the Federal Emergency Management Agency (FEMA) flood insurance rate maps at all locations in its design. PSNH stated that it used the 100-year flood for water elevations because the normal flood level or 10-year flood levels required by the NESC were not available, and the 100-year flood level will be well above the 10-year flood elevation.

PSNH said that the crossings depicted in Appendices B (North River in Nottingham) and C (Little River in Nottingham) will be set within jurisdictional wetlands or other areas that will require New Hampshire Department of Environmental Services (NHDES) permitting. PSNH further attested that the appropriate NHDES wetlands permits will be applied for and obtained by PSNH prior to the installation of any of the new structures associated with the crossing at this location.

PSNH stated that the use and enjoyment by the public of these waters will not be diminished in any material respect as a result of the proposed electric and communication line

crossings. PSNH further attested that the crossing will be constructed, maintained, and operated in accordance with the requirements of the NESC, ANSI C2-2007.

Staff filed its recommendation on February 10, 2010, and recommended that the Commission grant PSNH a license for the crossings. RSA 371:17 provides in relevant part that “[w]henever it is necessary, in order to meet the reasonable requirements of service to the public, that any public utility should construct a line of poles or towers and wires and fixtures thereon, over, under or across any of the public waters of” New Hampshire, “it shall petition the Commission for a license to construct and maintain the same.” “Public waters,” as defined in RSA 371:17, means “all ponds of more than 10 acres, tidewater bodies, and such streams or portions thereof as the Commission may prescribe,” and includes the portions of the water bodies covered by the present petition.

Based on the information presented by PSNH, the review and recommendations of Staff’s consultant, and Staff’s February 10, 2010 memorandum recommending approval of the petition, we find these crossings necessary for PSNH to meet the reasonable requirements of reliable service to the public within PSNH’s authorized franchise area and that the requested license may be exercised without substantially affecting the public rights in the affected waters. We find that the crossings are in the public good and we approve the petition on a *nisi* basis in order to provide any interested party the opportunity to submit comments on said petition or to request a hearing.

**Based upon the foregoing, it is hereby**

**ORDERED *NISI***, that subject to the effective date below, PSNH is authorized, pursuant to RSA 371:17 *et seq.*, to construct, maintain and operate electric and communications lines over

and across the public waters described in its petition and depicted in its table, figures, appendices, and exhibits submitted December 23, 2009 and supplemented on January 8, 2010, and on file with this Commission; and it is

**FURTHER ORDERED**, that PSNH shall conform to all requirements of the New Hampshire Department of Environmental Services related to these approved crossings; and it is

**FURTHER ORDERED**, that copies of all required wetland permits required by New Hampshire Department of Environmental Services for these crossings be filed with this Commission; and it is

**FURTHER ORDERED**, that all construction and future reconstruction to these approved crossings shall conform to the requirements of the National Electrical Safety Code and all other applicable safety standards in existence at that time; and it is

**FURTHER ORDERED**, that the PSNH maintains and operates these crossings in conformance with the National Electrical Safety Code; and it is

**FURTHER ORDERED**, that PSNH shall provide a copy of this order to the (i) Town Clerks of Nottingham, Barrington, and Lee, (ii) New Hampshire Attorney General and the owners of the land bordering on said public waters at the location of the crossing, pursuant to RSA 371:19, (iii) pursuant to RSA 422-B:13, New Hampshire Department of Transportation and the Office of Secretary, U.S. Department of Commerce, and (iv) the New Hampshire Department of Environmental Services by first class mail, no later than February 24, 2010, and to be documented by affidavit filed with this office on or before March 4, 2010; and it is

**FURTHER ORDERED**, that PSNH shall cause a copy of this Order *Nisi* to be published once in a statewide newspaper of general circulation or of circulation in those portions

of the state where operations are conducted, such publication to be no later than February 24, 2010 and to be documented by affidavit filed with this office on or before March 4, 2010; and it is

**FURTHER ORDERED**, that all persons interested in responding to this Order *Nisi* be notified that they may submit their comments or file a written request for a hearing which states the reason and basis for a hearing no later than February 26, 2010 for the Commission's consideration; and it is

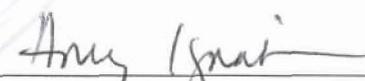
**FURTHER ORDERED**, that any party interested in responding to such comments or request for hearing shall do so no later than March 2, 2010 and it is

**FURTHER ORDERED**, that this Order *Nisi* shall be effective March 4, 2010, unless PSNH fails to satisfy the publication obligation set forth above or the Commission provides otherwise in a supplemental order issued prior to the effective date.

By order of the Public Utilities Commission of New Hampshire this nineteenth day of February, 2010.

  
Thomas B. Getz  
Chairman

  
Clifton C. Below  
Commissioner

  
Amy L. Ignatius  
Commissioner

Attested by:

  
Debra A. Howland  
Executive Director