

**STATE OF NEW HAMPSHIRE
PUBLIC UTILITIES COMMISSION**

DE 11-257

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

Petition for License to Construct and Maintain Electric Lines, Static Wires and Fiber Optic Cable Over and Across the Merrimack River in the Towns of Merrimack and Litchfield

Order *Nisi* Granting License

ORDER NO. 25,333

March 8, 2012

I. SUMMARY OF THE PETITION

On November 30, 2011, Public Service Company of New Hampshire (PSNH or the Company) filed a petition pursuant to RSA 371:17 requesting a license to construct and maintain electric lines, static wire and fiber optic cable at two locations over and across the public waters of the Merrimack River in the Towns of Merrimack and Litchfield, New Hampshire.

The project proposed in PSNH's petition will entail the installation of a new 115kV transmission line (the H123 Line) and the removal and replacement of a segment of an existing 115kV transmission line (the K165 Line). According to the petition, the existing K165 Line runs in a generally north-south direction between PSNH's Reeds Ferry Substation in Merrimack and Power Street Substation in Hudson. An existing 115kV tap off the K165 Line runs in a generally east-west direction from the tap point in Litchfield to PSNH's Anheuser Busch Substation in Merrimack (the "Busch Tap"), crossing over the Merrimack River in each of those towns.

According to the petition, the existing overhead crossing of the K165 Line "Busch Tap", which consists of three phase conductors, two static wires and one fiber optic cable, was

previously licensed by the Commission in Docket No. D-E5747, Order No. 9,829 dated November 28, 1969 (licensing the phase and static wires), and in Docket DE 97-117, Order No. 22,660, dated July 14, 1997 (licensing the cable installation).

PSNH states in its petition that in order to continue to meet the reasonable requirements of service to the public, it is necessary to reconfigure the existing K165 line by splitting the line at a point in Litchfield into two separate 115kV transmission lines, resulting in the removal of the existing K165 line Busch Tap and its crossing, to be replaced by two separate 115kV lines, each of which will cross over the Merrimack River in the same general location as the existing crossing.¹ According to PSNH, the two separate lines are needed to interconnect into a new PSNH 115kV transmission switchyard (designated the Eagle Substation), now under construction on PSNH-owned property in Merrimack on the west side of the Merrimack River. The Eagle Substation is needed to power a new PSNH distribution substation (designated the Thornton Substation), which is also under construction on PSNH's property in Merrimack in the same vicinity as the Eagle Substation, and which is being built to increase electric system infrastructure reliability in the area.

Crossing Location and Construction

The project proposed in PSNH's petition thus will involve two 115kV line segments being constructed over the Merrimack River between the Towns of Merrimack and Litchfield. The existing K165 Busch Tap will be replaced by a 115kV line set approximately 50 feet south of the existing location; the new 115kV line segment, to be designated the H123 Line, will be constructed to the north of the new K165 Line. After crossing the river from the Litchfield side,

¹ The Anheuser-Busch Substation, formally fed by the K165 line "Busch Tap", will now be fed by a new, separate line out of the Eagle Substation which will not involve any river crossing.

both the K165 and H123 lines will interconnect into the new Eagle Substation on the Merrimack side.

PSNH stated that as part of this project, the existing structures of the K165 Line Busch Tap crossing, which are wood H-frame type construction, will be removed and replaced with a directly embedded laminated wood structure (structure 184) and a steel pole on a concrete foundation (structure 183), with a span between structures of approximately 856 feet. The new H123 line also will consist of one directly embedded laminated wood structure (structure 201) and one new steel structure on a concrete foundation (structure 202), with a span of approximately 804 feet.

Clearance and Sag Requirements

According to PSNH, all clearances will exceed the 10-year flood elevation level and the minimum clearance to the water surface, as required by Section 232, note 18 and Table 232-1.7, respectively, of the National Electrical Safety Code (NESC). As the static wires and fiber optic cable are located above the phase wires at all crossings, PSNH assures that this NESC minimum clearance requirement will be met. PSNH further states that minimum distances to the road for truck traffic, based on Table 232-1.2 of the NESC for open supply conductors for 750V to 22kV to ground, will be met.

According to the petition, each of the two new line crossings will include three phase wires spanning the water body. In addition, the K165 Line crossing will include one static wire and one fiber optic cable; the H123 Line crossing will include two static wires. All six lines at each crossing will be sagged to meet NESC Heavy Load Condition requirements. According to

PSNH, the tensions and clearances of each wire and cable will be confirmed by survey at the time of installation.

N.H. Department of Environmental Services Requirements

According to the petition, the replacement of the existing structures and the placement of two new structures involved in this project will occur within the protected shoreland of the Merrimack River, as defined by RSA 483-B. While RSA 483-B:5-b, I(a) requires a shoreland permit for construction, excavation or filling activities within the protected shoreland, Administrative Rule Env Wq 1406.04(d)(7) exempts from permitting requirements the replacement of utility poles and guy wires using mechanized equipment, provided that appropriate siltation and erosion controls are used and all temporary impacts are restored. PSNH assures that it will comply with the applicable rule in the installation of the replacement structures. PSNH stated that the new structures are currently permitted by New Hampshire Department of Environmental Services (NHDES) Shoreland Impact Permit #2011-00451.

U.S. Army Corps of Engineers Requirements

PSNH also maintains that, because the Merrimack River is a federally-designated navigable water, the Company previously consulted with the U.S. Army Corps of Engineers (USACE) and was advised that, when wire and cable clearances will be increased over those presently in place, no Army Corps permit modifications are required. The replacement of the existing K165 Line Tap will entail raising the line within the existing corridor, so a permit modification will not be required. As the H123 is a new line, a permit modification will be required. PSNH stated that it is currently working with the USACE to obtain this permit modification.

National Electrical Safety Code Requirements

According to the petition, the proposed crossings will be maintained and operated by PSNH in accordance with the applicable requirements of the NESC.

Property Rights

PSNH asserts that it owns permanent easements 320 feet wide for its lines and facilities on the east side of the Merrimack River, and owns the land in fee on the west side of the Merrimack River at the location of the proposed crossings. PSNH asserts that the crossings will be installed within the limits of the permanent easements and the land owned by PSNH.

Public Rights in the Public Waters of the Merrimack River

In its petition, PSNH assures that the requested license may be exercised without substantially affecting the rights of the public in the public waters of the Merrimack River, as minimum safe line clearances above all water surfaces and affected shorelines will be maintained at all times. According to PSNH, the use and enjoyment by the public will not be diminished in any material respect as a result of the overhead line and cable crossings.

II. SUMMARY OF STAFF REVIEW

In memoranda filed on March 6 and 7, 2012, covering the two proposed line crossings separately, the Safety Division Staff found the petition to be in conformance with the applicable sections of the NESC. Upon review of the petition and existing field conditions, Staff further determined that PSNH has demonstrated a public need for the proposed crossing and that approval of the petition for a license is consistent with the public interest. In addition, during the course of its review Staff learned from PSNH that both crossings have received the necessary

permits from the USACE. In follow-up, Staff reviewed the petition for compliance with USACE permit conditions and confirmed that clearances exceed the minimum requirements.

The Safety Division recommended approval of PSNH's petition for a license to construct and maintain electric lines over and across the Merrimack River in the Towns of Merrimack and Litchfield, subject to the following conditions:

1) The Commission should require that all future alterations to the crossing that may affect the public conform to the requirements of both the 2002 and 2007 editions of the NESC and be resubmitted to the Commission 60 days prior to such alterations.

2) PSNH should be required to maintain and operate the crossings in conformance with the NESC or risk future revocation of the license.

III. COMMISSION ANALYSIS

RSA 371:17 requires utilities and corporations to petition the commission for a license to construct and maintain cable, conduit or poles and associated wires and fixtures over, under or across any public waters of the state whenever such facilities are necessary to meet the reasonable requirements of service to the public. 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. The NHDES is assigned responsibility under RSA 271:20 for preparing, maintaining, and publishing an official list of all public waters in the state. The official state list, which includes the Merrimack River in the Towns of Merrimack and Litchfield, is maintained at http://des.nh.gov/organization/divisions/water/dam/public_waters/index.htm.

Based on the information presented in PSNH's petition and Staff's memoranda, we find the proposed crossing necessary for PSNH to meet the reasonable requirements of reliable

service to the public within PSNH's authorized franchise area, as required by RSA 371:17, and that the requested license may be exercised without substantially affecting the public rights in the affected public waters, as required for approval under RSA 371:20. We find the crossing is in the public good and therefore approve the petition on a *nisi* basis, subject to the conditions recommended by the Safety Division. Our decision is issued on a *nisi* basis in order to provide any interested party the opportunity to submit comments on PSNH's petition or to request a hearing. Finally, inasmuch as NHDES is responsible by statute for maintaining the official list of public waters, and as the USACE requires permit modification for the H123 line, we determine that notice to both the NHDES and the USACE of the proposed crossings is warranted.

The petition and subsequent docket filings, other than information for which confidential treatment is requested of or granted by the Commission, is posted to the Commission's website at <http://www.puc.nh.gov/Regulatory/Docketbk/2011/11-257.html>.

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 other lines over and across the public waters described in its petition and depicted in its November 30, 2011 filing, and on file 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, in accordance with N.H. Code Admin. Rules Puc 306.01 and Puc 1303.07 and all other applicable safety standards in existence at that time; and it is

FURTHER ORDERED, that PSNH shall maintain and operate this crossing in conformance with the National Electrical Safety Code, in accordance with N.H. Code Admin. Rules Puc 306.01 and Puc 1303.07; and it is

FURTHER ORDERED, that PSNH submit any future proposed alterations to the crossing license granted herein at least 60 days prior to the proposed alteration; and it is

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

FURTHER ORDERED, that copies of all permits required, and any correspondence stating that modifications permits are not required, by the U.S. Army Corps of Engineers for these crossings be filed with this Commission; and it is

FURTHER ORDERED, that PSNH shall provide a copy of this order to (i) the Town Clerk of Merrimack, New Hampshire, (ii) the Town Clerk of Litchfield, New Hampshire, (iii) the 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, (iv) the New Hampshire Department of Environmental Services; and (v) the U.S. Army Corps of Engineers. All copies should be provided by first class mail, no later than March 12, 2012, and documented by affidavit filed with the Commission on or before March 19, 2012; and it is

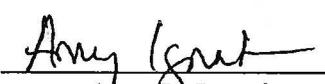
FURTHER ORDERED, that the Petitioner shall cause a copy of this Order *Nisi* to be published once in a statewide newspaper of general circulation or of circulation in those portions of the state where operations are conducted, such publication to be no later than March 12, 2012 and to be documented by affidavit filed with this office on or before March 19, 2012; 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 March 14, 2012, 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 16, 2012; and it is

FURTHER ORDERED, that this Order *Nisi* shall be effective March 19, 2012, unless the Petitioner 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 eighth day of March, 2012.



Amy Ignatius
Chairman



Michael Harrington
Commissioner



Robert Scott
Commissioner

Attested by:



Debra A. Howland
Executive Director