

**STATE OF NEW HAMPSHIRE  
PUBLIC UTILITIES COMMISSION**

**DE 08-064**

**PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE**

**Petition for License to Construct and Maintain Electric Lines and a Fiber Optic Communications Cable Over and Across the Public Waters of the Merrimack River in Bow, Concord, Franklin, and Northfield, the Soucook River in Concord and Pembroke, Turtle Town Pond in Concord, and Chance Pond in Franklin**

**Order *Nisi* Granting License**

**ORDER NO. 24,859**

**May 30, 2008**

On April 24, 2008, Public Service Company of New Hampshire (PSNH) filed a petition pursuant to RSA 371:17 for a license to construct and maintain electric and fiber optic communications lines at six water crossing locations for the purpose of rebuilding the 115 kilovolt (kV) line between Garvins Substation in Bow and the Webster Substation in Franklin (V-182 line). In support of its petition, PSNH filed: (1) a detailed drawing depicting the construction specifications of the proposed dead end structures, (2) a detailed drawing depicting the construction specifications of the proposed tangential structures, (3) a table identifying the existing licensed crossings, related bodies of water, prior docket numbers and Commission orders, and a statement of how they relate to the petition, and (4) appendices describing the design conditions, geographic location, plan and profile drawings, projected elevations and geographic maps depicting the locations of the six proposed crossings.

PSNH states that the new crossings are required to rebuild the V-182 line, which is an integral part of the PSNH transmission system and the overall New England transmission grid, in order to increase the power transfer capability of the line for load growth in central New

Hampshire. The V-182 line is the smaller of two 115 kV circuits that traverse north from Merrimack Station in Bow to the Webster Substation in Franklin. According to the company, when Merrimack Station is running, the loss of the larger line causes the V-182 line to exceed its thermal capabilities. PSNH states that rebuilding the V-182 line and the six reconstructed water crossings will allow PSNH to provide reliable electric service to its customers in the central part of the state.

The affected crossings comprise: two locations on the Merrimack River, one on the Bow/Concord town line and the other on the Franklin/Northfield town line; two locations on the Soucook River, both on the Concord-Pembroke town line; one location at Turtle Town Pond in Concord; and one location on Chance Pond in Franklin. With the exception of land on both sides of the Merrimack River in Bow and Concord, which is owned by PSNH, PSNH holds easements of a minimum of 225 feet in width for its lines and facilities on both sides of the public water bodies at the proposed crossing locations. The crossings will be constructed within the limits of those easements or on PSNH property. According to the company, there are no abutters to either side of the crossings.

PSNH plans to replace the existing V-182 pole structures, most of which are of H-frame type construction, with new structures designed to handle the increased loads of the larger conductor. According to the petition, a majority of the line will be rebuilt with single pole structures with davit arms. In those locations, the two existing static wires will be replaced with one new optical ground wire, containing fiber optic cable (OPGW). PSNH explained that use of the OPGW cable will improve and enhance the reliability and capacity of the communications systems used in PSNH's electric system operations.

PSNH investigated various weather and loading conditions to determine the minimum clearance of the conductors to the water and land surfaces of the crossings. As planned by the company, all conductors, static wires, and OPGW communication cables will be sagged to National Electric Safety Code (NESC), American National Standards Institute (ANSI) C2-2007 Heavy Load Conditions.

In designing the distance of the phase conductors to water surfaces, PSNH used the 100-year flood levels contained in the Federal Emergency Management Agency (FEMA) flood insurance rate maps at all locations except for Turtle Town Pond because no FEMA maps exist for this water body. To determine the flood elevation for the two Turtle Town Pond crossings, PSNH performed a hydrological analysis of the Pond and the surrounding area. After determining the respective water elevations, PSNH followed the requirements for minimum clearance to water and land surfaces using NESC standards for phase conductor placement. PSNH also used the NESC standard to determine the placement of static wire and OPGW cable in relation to the phase conductors. In each instance, PSNH designed the construction to exceed the NESC standards.

PSNH states that with the exception of the Turtle Town Pond crossing, none of the crossing structures will be set within jurisdictional wetlands or other areas that will require a New Hampshire Department of Environmental Services (NHDES) permit. PSNH further states that it will obtain all necessary DES wetlands permits, prior to installing new structures.

RSA 371:17 requires a utility to obtain Commission approval before constructing poles, towers and associated wires and fixtures over under or across any public waters. "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.”

Based on the information presented by PSNH, and Staff’s May 30, 2008 memorandum recommending approval of the petition, we find that these crossings are necessary for PSNH to meet the “reasonable requirements of reliable service to the public” as required by RSA 371:17 and that they will not substantially affect the public’s rights in the public waters in question, as required for approval under RSA 371:20. 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 April 24, 2008 and on file with this Commission; and it is

**FURTHER ORDERED**, that PSNH shall conform to all requirements of NHDES related to these approved crossings; and it is

**FURTHER ORDERED**, that copies of all required NHDES wetland permits required 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 NESC and all other applicable safety standards in existence at that time; and it is

**FURTHER ORDERED**, that PSNH maintains and operates these crossings in conformance with the NESC; and it is

**FURTHER ORDERED**, that PSNH shall provide a copy of this order to the clerks of the affected municipalities, the Attorney General, and other owners of land parcels bordering on public waters at and immediately upstream and downstream of the location of each crossing, the New Hampshire Department of Transportation, the Office of Secretary, U.S. Department of Commerce, and the New Hampshire Department of Environmental Services by first class mail, no later than June 18, 2008, and to be documented by affidavit filed with this office on or before June 30, 2008; 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 June 9, 2008 and to be documented by affidavit filed with this office on or before June 30, 2008; 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 June 16, 2008 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 June 23, 2008 and it is

**FURTHER ORDERED**, that this Order *Nisi* shall be effective June 30, 2008, unless PSNH fails to satisfy the publication obligation or affidavit requirements 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 thirtieth day  
of May, 2008.

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Thomas B. Getz  
Chairman

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Graham J. Morrison  
Commissioner

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Clifton C. Below  
Commissioner

Attested by:

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Debra A. Howland  
Executive Director & Secretary