

STATE OF NEW HAMPSHIRE  
BEFORE THE  
PUBLIC UTILITIES COMMISSION

DE 15-062

New England Power Company d/b/a National Grid

**Motion to Alter Crossing Approval Granted Pursuant to Order No. 25,838**

New England Power Company d/b/a National Grid (“NEP”) hereby moves the Public Utilities Commission (“PUC” or the “Commission”), pursuant to its Order *Nisi* Amending Order 25,817 Granting License to Cross the Connecticut River in the Town of Littleton (Order No. 25,838) (“Amended Order *Nisi*” or “License”), alter the location of one structure in the License granted by the Commission for the crossing of the Connecticut River. Specifically, NEP seeks approval to adjust the location of structure WT2 on the New Hampshire side of the Connecticut River by 97 feet in a south by southwest direction. The proposed alteration is necessary to address unforeseen issues identified during site preparations with the initial designed location of the structure. The crossing and proposed alteration over the Connecticut River is designed and will be constructed in accordance with the 2012 National Electrical Safety Code C2-202 (“NESC”), as described in Puc 306.01. Also, as a result of the relocation of WT2, the clearance above the Connecticut River will be increased. The License will otherwise remain unchanged and NEP either has or will comply with all conditions of the License. NEP respectfully requests that the Commission act on this motion in time to ensure that NEP will meet its spring construction schedule. In support of this motion, NEP states as follows:

## **Background**

1. On February 11, 2015, NEP filed a Verified Petition for License to Cross the Connecticut River to alter two existing crossings for the existing 3315 circuit, which comprises a 34.5 kV electric transmission line that runs approximately 8.3 miles along the northeastern edge of Vermont and northwestern New Hampshire beginning at the Moore Hydroelectric Station in Littleton, New Hampshire and terminating at the 34.5 kV substation at the Comerford Hydroelectric Station in Monroe, NH. The Verified Petition sought a License to cross the Connecticut River in two locations, namely, across the Connecticut River between Vermont and Littleton, NH and another crossing across a portion of the Connecticut River near Bill Little Brook, within the Town of Littleton.

2. On May 6, 2015, PUC Staff sent a list of data requests and requests for clarity on information contained in the Verified Petition.

3. On June 19 and July 18, 2015, NEP submitted additional data to respond to PUC Staff data requests.

4. On August 7, 2015, PUC Staff concluded and recommended approval of NEP's Verified Petition to the Commission with two conditions: "(1) The Commission should require that all future alterations that may impact the public to the crossing conform to the requirements of the 2012 editions of the NESC and be resubmitted to the Commission 60 days prior to the alteration; and (2) NEP should be required to maintain and operate the crossings in conformance with the NESC or risk future revocation of the license."

5. As part of the Commission's analysis, PUC Staff summarized one of the two proposed Connecticut River Crossings as follows:<sup>1</sup>

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<sup>1</sup> This is the crossing that is affected by this Request to Alter NEP's License.

Connecticut River Crossing near Lower Waterford Rd. Waterford, VT: The Connecticut River has an existing energized 3315 circuit over it that is being relocated approximately 1 mile south on the Connecticut River (along the flow of the river). The proposed crossing will [be] between Structures WT2 and WT3 (span 910 feet). The pole structure on the northerly side of the river, WT3 will be set back approximately 50 feet from the river bank and will be a double pole H Frame dead end type 70 ft tall steel pole with 2 round poles that would carry 1 set of conductors maintaining a horizontal configuration. The pole structure on the southerly side of the river, WT2 will be set back 148 ft from the river bank and will be a double pole H Frame dead end type 50 ft tall steel pole with 2 round poles that would carry 1 set of conductors maintaining a horizontal configuration. The 3315 segment spanning the Connecticut River will be comprised of three [477] kcmil ASCR phase conductor wires (26 Al/7 St), [one] 3/8 inch diameter shield wire[ ] at the very top of the structure and one optical cable [ground] wire that will be used for communications by NEP.<sup>2</sup>

6. On September 24, 2015, the Commission issued an Order *Nisi* No. 25,817 Granting the Water Crossing License for both river crossing locations. NEP complied with all publication and notice requirements contained in the Order *Nisi*.

7. On November 3, 2015 the Commission issued an amended order on a *nisi* basis to ensure that all interested parties receive notice of the Commission's order and to ensure that sufficient notice was given clarifying that the licenses pertain to crossings of the Connecticut River at two locations in the Town of Littleton, NH. NEP complied with all publication and notice requirements contained in the Amended Order *Nisi*.

8. The Amended Order *Nisi* granted NEP a License to cross the Connecticut River in the two requested locations. The previously approved approximate 910 foot crossing between Vermont and Littleton, NH is depicted on Attachment A, dated May 20, 2015.

#### **Proposed Alteration to License**

9. Pursuant to the Amended Order *Nisi* at page 7, which specifically provides that "NEP shall submit any future proposed alteration(s) to the crossing license granted herein at least 60 days prior to such alteration(s)," NEP respectfully requests that the Commission alter the

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<sup>2</sup> NEP has made minor clarifications to this paragraph in brackets.

License to allow NEP to relocate structure WT2. *See also* RSA 365:28 (granting the Commission authority to “alter, amend . . . or otherwise modify any order made by it”).

10. NEP already began refurbishing the 3315 circuit in November 2015 to extend the life of the circuit. As with the construction of any new transmission structure, NEP and its contractors began site preparations in the proposed location of each of the new structures for the Connecticut River crossing between Vermont and Littleton, NH. While preparing for the construction of the crossing, NEP determined that the proposed location of structure number WT2, the structure on the eastern side of the Connecticut River, was not in an ideal location. The proposed structure location for WT2 was not in an area with a sufficiently solid foundation. Constructing structure WT2 in the initially identified location would have created significant construction difficulties and increased the potential for defects in the construction. Also while preparing for construction, NEP learned that the proposed location of structure WT2 would not avoid an intermittent stream as previously planned, raising the potential for impacts to the environment. The location of the stream was located directly in line with the location of the foundation of the left leg of structure WT2. Installing the new structure at this location would disrupt the natural draining ability of the stream to the river. Due to the drastic change in elevation near the stream, the structural integrity of the structure would have also been compromised due to the lack of soil strength required to withstand the loads the structure was designed for.

11. To eliminate any potential construction defects or disruptions to the flow path of the intermittent stream, NEP seeks to alter the location of structure WT2 and move the structure approximately 97 feet south by southwest from its originally proposed location. Structure WT2 will remain a 50 foot weathered steel H-frame dead-end structure and will be sited approximately

165 feet from the New Hampshire Side of the Connecticut River Bank. *See* Attachment B (updated plan and profile drawing, March 18, 2016).<sup>3</sup>

12. The proposed alteration for the river crossing will remain entirely aerial in nature and as originally approved will consist of three conductor cables that will have a minimum clearance of 35 feet above the high water level of the river. The requested alteration to the location of Structure WT2 will increase clearance over the maximum water elevation of the Connecticut River by approximately 5 to 10 feet (from 40 feet to approximately 50 feet). A fiber optic cable will also be installed and have a minimum clearance of 37 feet above the high water level and one shield wire above the conductors that will have a minimum clearance of 37 feet above the high water level as approved in the License.

13. The alteration will also shorten the distance of the overall span length across the river by 12' (from 910 feet to 898 feet).

14. The remaining design parameters for this crossing will remain unchanged.

15. The entire project, including the adjustment of the location for structure WT2 has been designed in accordance with the NESC to ensure sufficient structure strength and the required minimum clearances above the Connecticut River. The project was designed assuming the most sag that could potentially occur over the river. The design also demonstrates that the material, height, and location of the support structures, the conductor sizes and materials will comply with applicable requirements of the NESC and Puc 306.01, as required by the License.

16. Installation of the cables across the river will not require any dredging or use of heavy equipment in the river, and at no time will the flow of the river be diverted or altered for

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<sup>3</sup> Although not part of the physical river crossing subject to approval under RSA 371:17, the location of WT1, the structure directly to the east of WT2, will also be relocated 20 feet west of its original location. Structure WT1 will be moved in order to maintain electrical clearance between the conductors crossing overhead, as well as the fiber cable crossing underneath the relocated span between these two structures. The location of the structure on the Vermont side of the Connecticut River, WT3, will remain unchanged.

the project. The actual installation of the cables across the river is anticipated to require 4 to 6 hours, during which time use of the river in the immediate area of the project will need to be restricted. This is consistent with the original license application approved by the Commission.

17. As discussed in the original license application, the refurbishment of the 3315 circuit is needed to extend the life of the circuit and remedy the effects of normal deterioration that has occurred during the approximately 90 years since the line was first put in service. The crossing is necessary to meet the reasonable requirements of service to the public and is in compliance with RSA 371:17.

18. Except for the very short period during which the cables described above will be installed or removed, the rights granted by the license sought in this petition can be exercised by NEP without affecting the rights of the public to use the waters of the Connecticut River or the property of the State, and the use and enjoyment by the public of the river and the property of the State will not be diminished. All of the property rights necessary to construct and maintain the transmission line above the Connecticut River and the State's property have been obtained, and therefore no taking of private property or other acquisition of property rights is required for this purpose. This too is consistent with the original license application approved by the Commission.

19. This proposed alteration will not in any way affect the crossing of the Connecticut River near Bill Little Brook in the Town of Littleton.

#### **Construction Schedule**

20. NEP is currently on a constrained construction timeline. To complete the refurbishment of the 3315 circuit in a timely fashion, all work on the crossing must be completed no later than August 30, 2016 as NEP intends to start outage work on the line starting on August

31. To meet the August 30 deadline, NEP must begin setting the foundation for the structures by the end of May to commence construction of the structures by early August.

21. NEP respectfully requests that the Commission expedite review of the proposed alteration and issue an order as soon as practicable to ensure that NEP will meet its in-service date for the refurbished 3315 circuit.

### **Notice**

22. A copy of this Request to Alter the License is being provided to Joseph A. Foster, Esq., Attorney General, Donald Kreis, Esq., Consumer Advocate, Town Clerk of Littleton, Town Clerk of Monroe, the New Hampshire Department of Environmental Services, the United States Army Corps of Engineers, the New Hampshire Department of Transportation, the Office of Secretary, U.S. Department of Commerce, and the New Hampshire property owners of the parcels abutting the crossings described above, John and Martha Meyer, Peter and Deborah Poulsen, and TransCanada Hydro Northeast, Inc.

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WHEREFORE, NEP respectfully requests that the Commission:

- A. Approve NEP's proposed alteration to its License to cross the Connecticut River in the location and for the purposes described above;
- B. Issue an order granting the alteration of the License in time to ensure NEP will meet its spring construction schedule;
- C. Grant such other and further relief as the Commission may determine to be just and reasonable and consistent with the public interest.

Respectfully submitted,

NEW ENGLAND POWER COMPANY  
d/b/a NATIONAL GRID

By its Attorneys,

McLANE MIDDLETON,  
PROFESSIONAL ASSOCIATION

March 21, 2016


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Certificate of Service

I, Thomas Getz, hereby certify that an original and six copies of the foregoing Motion to Alter Crossing Approval Granted Pursuant to Order No. 25,838 and all related exhibits have been forwarded this 21<sup>st</sup> day of March, 2016 to the New Hampshire Public Utilities Commission and a copy of the Motion and all exhibits have been forwarded to Joseph A. Foster, Esq., Attorney General, Donald Kreis, Esq., Consumer Advocate, Town Clerk of Littleton, Town Clerk of Monroe, the New Hampshire Department of Environmental Services, the United States Army Corps of Engineers, the New Hampshire Department of Transportation, the Office of Secretary, U.S. Department of Commerce, and the New Hampshire property owners of the parcels abutting the crossings described above, John and Martha Meyer, Peter and Deborah Poulsen, and TransCanada Hydro Northeast, Inc.

  
Thomas Getz