

**THE STATE OF NEW HAMPSHIRE  
BEFORE THE  
DEPARTMENT OF ENERGY**

**NEW ENGLAND POWER COMPANY**

**DOCKET NO. CRE 2023 – 022**

**APPLICATION OF NEW ENGLAND POWER COMPANY FOR A LICENSE TO  
CONSTRUCT AND MAINTAIN AN ELECTRIC LINE OVER AND ACROSS PUBLIC  
WATERS IN HINSDALE, NEW HAMPSHIRE**

Pursuant to RSA 371:17, New England Power Company (“NEP”), a public utility engaged in the transmission of electricity in the State of New Hampshire, hereby submits an Application to the New Hampshire Department of Energy (the “Department”) for a license to construct and maintain an electric line over and across the Connecticut River in Hinsdale, New Hampshire. In support of this Application, NEP states as follows:

1. In order to meet the requirements for reasonable service to the public, NEP has previously constructed and currently operates and maintains an overhead 69 kV electrical transmission line that traverses the Connecticut River, designated as the A1 Line. The A1 Line was originally built in the early 1930s and runs between the Pratts Junction Substation in Sterling, Massachusetts, and the Vernon #13 Substation in Vernon, Vermont (the “Vernon Substation”). The public water crossing at the Connecticut River that is the subject of this Application was licensed in 1953 in Public Utilities Commission Order # 6217, a copy of which is provided as Exhibit 1 to this Application. The Order identifies the A1 Line as V-W 1908 (Plan #L-5047).
2. The proposed project is driven in part by the need to fulfill certain asset-separation requirements associated with the Vernon Substation and the Vernon Hydroelectric Project owned by Great River Hydro, LLC (“GRH”). The Vernon Substation contains

facilities associated with GRH's hydroelectric facility in addition to facilities owned by NEP. To meet contractual requirements, NEP is proposing to relocate its existing assets from the Vernon Substation to a proposed substation at a nearby site in Vernon, Vermont, which will be called the Huntington #3206 Substation (the "Huntington Substation"). This project will re-route and connect the A1 Line from the Vernon Substation to the Huntington Substation (the "Transmission Reroute").

3. As part of the Transmission Reroute, NEP will replace the existing 69 kV Line with new high-tension conductor to span the Connecticut River. The new line will be operated at 69 kV, although it has been designed to a 115 kV standard consistent with long-term planning needs. The Transmission Reroute also involves replacing the existing copperweld shield wire on the Line with 5/8" optical ground wire and 1/2" extra high strength shieldwire.
4. The location of the public water crossing that is the subject of this Application is depicted on the Overview Map attached hereto as Exhibit 2. A detailed description of the water-crossing location is provided below. The structure numbers referenced in the description below correspond to the structure labels provided in Exhibit 2.

A1 Line: The existing A1 Line crosses the Connecticut River between Structure 1-1, which is a single circuit lattice tower in Hinsdale, and the existing Vernon Substation. NEP proposes to remove the lattice tower and install new steel structures in New Hampshire and Vermont along with new high-tension conductor to span the Connecticut River. The rerouted A1 Line will span the Connecticut River between proposed Structure 4A in Hinsdale and proposed Structure 3A in Vernon. Structure 4A will be located approximately one mile to the southwest of Stage Road, which is the nearest public road

in New Hampshire. The span distance between Structure 3A and Structure 4A is approximately 1,666 feet.

5. The location of structures and maximum sag conditions create the following crossing spans over the Connecticut River, as specified on Exhibit 2:
  - Line A1:
    - i. Structures: 4A to 3A
    - ii. Structure Span: 1,666 feet
    - iii. Connecticut River Span: 1,385 feet
6. All conductors and wires have been depicted on Exhibit 2 to show the minimum clearance over the Connecticut River at maximum sag conditions. NEP relied on FEMA flood maps when establishing flood elevations for the water crossing spans, as indicated in Note 2 to Exhibit 2.
7. NEP will maintain and operate the clearance of the crossing at a height no less than what is required by the 2023 National Electrical Safety Code (NESC, Table 232-1), which is 36.1 feet for 115 kV wires over water areas suitable for all boating including lakes, ponds, reservoirs, tidal waters, rivers, streams and canals with an unobstructed surface area of 200 to 2,000 acres, and 20.1 feet for 115 kV wires over other areas traversed by vehicles, such as cultivated, grazing, forest, and orchard lands, industrial sites, commercial sites, etc. The actual minimum height over the Connecticut River exceeds the minimum NESC requirements, as depicted on Exhibit 2. While the line is currently operated at 69 kV, it has been designed to meet 115 kV clearance requirements in the event the line is operated at 115 kV in the future.
8. A New Hampshire Department of Environmental Services (“NHDES”) Shoreland Permit by Notification (“PBN”) will be required for impacts to the 250-foot protected shoreland

of the Connecticut River associated with the Transmission Reroute described in this Application. The PBN will be obtained prior to commencement of construction.

9. An NHDES Alteration of Terrain Permit will be required for access road upgrades to reach the New Hampshire structure with heavy equipment. This authorization is being obtained in connection with a separate NEP project that will also require the access road upgrades, and will be obtained prior to the commencement of construction.
10. The U.S. Army Corps of Engineers (“ACOE”) regulates the Connecticut River as navigable waters and the scope of work discussed in this Application at the subject crossing location will be licensed under the ACOE New Hampshire Programmatic General Permit #2 and which licensing will be accomplished prior to commencement of the Transmission Reroute.
11. The wire installation work in New Hampshire will be accomplished within existing right-of-way easements, thereby mitigating impacts and concerns of property owners affected by the Transmission Reroute. When wires are being transferred, NEP will ensure the waterbody is clear of any recreational users before work commences. Additionally, a guard structure will be utilized when wires are being transferred from an old structure to a new one to limit the likelihood of a wire falling into the Connecticut River and to protect the general public.
12. NEP submits that the license Application herein may be exercised without substantially affecting the use and enjoyment of the public water because safe clearances will be maintained at all times and appropriate precautions to ensure the safety of recreational users will be undertaken while the work is performed.

WHEREFORE, NEP respectfully requests that the Department:

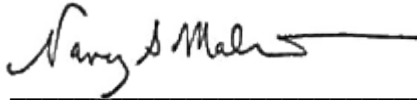
- A. Find that the license Application herein may be exercised without substantially affecting the public rights in the public water crossing that is the subject of this Application; and
- B. Grant NEP a license to construct and maintain electric lines over and across public waters as described in this Application.

Dated at Lebanon, New Hampshire, this 7<sup>th</sup> day of September, 2023.

Respectfully submitted,

New England Power Company

By its Attorneys,



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