

The State of New Hampshire

Before the

Public Utilities Commission

Docket No. \_\_\_\_\_

PETITION OF SOVERNET FIBER CORP.  
FOR LICENSE  
TO CONSTRUCT AND MAINTAIN FIBER OPTIC CABLE  
OVER AND ACROSS THE FOLLOWING NEW HAMPSHIRE PUBLIC WATERS:

- MASCOMA RIVER IN LEBANON, NEW HAMPSHIRE (BANK STREET EXTENSION)

TO THE PUBLIC UTILITIES COMMISSION:

Sovernet Fiber Corp. (“SFC”) hereby petitions the Public Utilities Commission (“Commission”), pursuant to the RSA 371:17 for a license to construct and maintain a fiber optic cable over and across the public waters of the aforementioned river at one location in the City of Lebanon, New Hampshire.

Construction and maintenance of the cable at this river crossing will promote the public good as the fiber are part of an 800 mile network that will connect over 340 schools, libraries, hospitals and government facilities in Vermont, as well as several adjoining areas of New Hampshire and Massachusetts.

In support of its petition SFC states as follows:

1. Sovernet Fiber Corp., d/b/a Vermont FiberConnect, is authorized by the New Hampshire Public Utilities Commission to provide local exchange services throughout the State of New Hampshire. Authorization No. CL 06-001-11.
2. SFC is constructing and will own, maintain and operate a fiber optic, middle mile network that will connect approximately 340 community anchor institutions, in accordance with the requirements of a grant to the Vermont Telecommunications Authority (“VTA”) by the National Telecommunications Information Administration and the Vermont Department of Libraries. Small portions of the grant-funded network will extend into New Hampshire.
3. SFC requests a license to construct and maintain a fiber optic cable over and across the public waters at one location in the City of Lebanon, New Hampshire:

- a. Mascoma River at Bank Street Extension, between utility poles National Grid (“N/G”) #32 / FairPoint (“FP”) #1.5 and N/G #33 / FP#2.
4. The river segment for which a crossing license is requested is listed as public water in the “Official List of Public Waters”, issued March 1, 2011, published by the New Hampshire Department of Environmental Sciences, Dam Bureau (“NHDES”).<sup>1</sup>
5. A separate engineering package is provided for the crossing, with location maps detailing where and how the new line will cross the body of water.
6. The design and proposed construction of the crossing is shown on the attached profile drawing. Based on the research and field inspection of SFC’s consulting engineer, it has been determined that the crossing is classified as waterways not suitable for sail boating per NESC, Table 232-1.
7. At the crossing, SFC’s cable will be placed between two existing utility poles within the existing public right-of-way. The attached diagram provides exact distances between poles, and the height of each pole. Vertical distances are representative of the attachment heights after the completion of all moves deemed necessary by the pole owners during their make-ready assessments.
8. SFC’s attachment will be made up of four components: strand, duct, cable and over lash wire (collectively “overhead line crossing”). A strand wire will be placed across the river between existing utility poles. The strand will be nominal diameter 5/16<sup>th</sup> inch, 11.2m, 7-strand steel, EHS. A 2” duct will be over lashed to the strand. A non-self-supporting 288-count Pureband (ZWP) single-mode fiber optic cable will be placed within the duct.
9. Sag and tension calculations were done per National Electrical Safety Code (“NESC”), articles 232.A1 and 251, using the heavy load conditions (0 degrees Fahrenheit temperature, 4.0 pounds per square foot (psf) wind loading, and ½” radial ice). In all cases, the calculations for Article 251, using the heavy load conditions, were found to be the governing condition for both sag and tension. The maximum tension under heavy load conditions were calculated for each individual crossing as depicted on the attached plans, and were found to not exceed 60% of usable strand load of 11,200 pounds. The calculations demonstrate that the cables should not fail under these heavy load conditions. The load was calculated by a professional engineer and as the attached drawings depict, the cables do maintain the necessary clearances as described above.
10. Vertical clearances are calculated from the Federal Emergency Management Agency (“FEMA”) 10-year flood profile. The location of data referenced for the drawing is provided in the attachments. For most crossings, a conservative flood elevation was calculated by adding the delta between the river bed elevation and the 10-year flood elevation to the surveyed water level.

---

<sup>1</sup> See <http://des.nh.gov/organization/commissioner/pip/publications/wd/documents/olpw.pdf>.

11. The crossing is within 10 feet horizontally of an existing highway bridge structure. As depicted on the attached simplified profile drawing, the lowest cable will be nineteen feet two inches (19'2") above the bridge deck, which in turn, is sixteen feet (16') above the river level, or approximately thirty-five feet (35') between the lowest cable and river level.
12. There is a minimum of twelve inches (12") clearance between the proposed attachment and adjacent communications cable on each pole.
13. NHDES and New Hampshire Department of Transportation permits are not required for the construction of each crossing.
14. The proposed crossing has been designed and will be constructed, maintained and operated by SFC, its affiliates and contractors, in accordance with the NESC.
15. SFC submits that the license petition for herein may be exercised without affecting the rights of the public in the public waters of the river. Minimum safe line clearances above the water surface and affected shorelines will be maintained at all times. The use and enjoyment of the public of each waterway will not be diminished in any material respect as a result of the overhead line crossing.

WHEREFORE, SOVERNET FIBER CORPORATION respectfully requests that the Commission:

- A. Find that the license petitioned for herein may be exercised without affecting the public rights in the public waters which are part of this petition.
- B. Grant Sovernet Fiber Corp. a license to construct and maintain a fiber optic cable over and across the public waters of the river as specified in this petition; and
- C. Issue an Order Nisi and orders for its publication.

Dated at Bellows Falls, Vermont the \_\_24th\_ day of May, 2013.

Respectfully Submitted  
Sovernet Fiber Corp.  
By its Director of Regulatory Affairs



Lawrence Lauby

Sovernet Fiber Corp.  
5 Canal Street  
Bellows Falls, Vermont 05101