

**The State of New Hampshire
Before the
Public Utilities Commission
Docket No. DT 10-246**

**PETITION OF FREEDOM RING COMMUNICATIONS L.L.C. d/b/a BAYRING COMMUNICATIONS
FOR LICENSE TO CONSTRUCT AND MAINTAIN A UTILITY CABLE/CONDUIT OVER AND ACROSS
THE SUNCOOK RIVER BETWEEN UTILITY POLE CECO 39 AND UTILITY POLE CECO 40.**

TO THE PUBLIC UTILITIES COMMISSION:

Freedom Ring Communications L.L.C d/b/a BayRing Communications, a public utility engaged in the generation, transmission, distribution and sale of telecommunications in the State of New Hampshire, hereby petitions the Public Utilities Commission ("Commission"), pursuant to RSA 371:17, for a license to construct and maintain telecommunication lines over and across the public waters of the Suncook River in the town of Epsom, New Hampshire, and in support of its petition states as follows:

1. In order to meet the reasonable requirements of service to the public, BayRing Communications is proposing to construct a new 216 fiber optic line. The new line will help to accommodate the growth in demand and to obtain a greater level of service reliability in the Epsom area.
2. The new line will cross the Suncook River along the northeast side of U.S. Routes 4 & 202 + N.H. Route 9 (Dover Road) Bridge # 086/127
3. The location of the proposed crossing is shown on the attached location map.
4. The design and proposed construction of the crossing is shown on the attached Dewsnap Engineering Associates, LLP and Distribution Business Plan Consulting Engineers Group, Inc. Profile drawing entitled "Existing Conditions, Plan of Land in Epsom, NH".
5. The proposed crossing will occur between two existing Utility poles set approximately 168 feet apart. The existing pole on the west side of the Suncook River, Utility Pole CECO 39 is a class 4, 45 foot pole. The existing pole on the east side of the Suncook River, Utility Pole CECO 40 is a class 4, 45 foot pole. The line will be made up of two materials; Conductor nominal diameter 5/16in 7-strand steel EHS and 1 non-supporting cable, added diameter = 0.750 in, weight = 0.124lb/F which contains 216 fiber optic strands. The steel and non-supporting cable will be sagged using the Heavy Load condition (0° F, 4 psf wind loading and ½" radial ice) with a maximum tension of 2,007 lbs under that load.

6. Pole loading calculations were developed using conductor information supplied from the associated Utility companies (CECO and Comcast).
7. To accommodate space on the pole Comcast will be lowered 6" inches from its current location, reducing space at each pole from 18" to 12" inches. CECO will be required to re-tension and elevate its neutral conductor by 6". Both companies have stated to us that they will do so.
8. The 10 year flood water elevation for the Suncook River is taken from the flood Insurance study, Volume 2 of 2 Merrimack County, New Hampshire(All Jurisdiction) Effective date: April 19, 2010, by the Federal Emergency Management Agency (Page 74P) Benchmark: Taken from site plan Bank of NH property. Established Using GPS. First floor= 345.81 (USGS DATUM) and correlated to the NGVD 1929 datum.
9. Using the above design criteria, the maximum sag of the non-supporting cable and minimum clearances for the crossing have been determined and designed as follows: (these land and water clearances are for the BayRing cable only)
 - A. NESC Heavy, Non-supporting cable – The maximum sag on the fiber optic cable under this condition is 3.9'. The minimum clearance to land is 25.8' at pole CECO 40 on the East side of the river. The minimum clearance to the 10 year flood level is 30.7'.
 - B. 120° F, Non-supporting cable – The maximum sag on the fiber optic cable under this condition at 120 degrees is 3.4'. The minimum clearance to land is 25.8' at pole CECO 40 on the East side of the river. The minimum clearance to the 10 year flood level is 31.2'.
 - C. 50° F, Non-supporting cable – The maximum sag on the fiber optic cable under this condition is 2.7'. The minimum clearance to land is 25.8' at pole CECO 40 on the East side of the river. The minimum clearance to the 10 year flood level is 31.9'.
10. For minimum clearances between the BayRing Cable, and CECO Facilities, the following conditions apply.
 - A. For BayRing to CECO – 32 degrees F with ice for CECO and 32 with no ice for BayRing as show in detail 4, sheet 2 of 2 on the submitted plans. The midspan clearance for these conditions is 30.1"
11. For minimum clearances between the BayRing Cable and Comcast Facilities, the following worst case condition was considered.

For BayRing to Comcast – 32 degrees F with ice for BayRing and 32 degrees F with no ice for Comcast was considered as shown in detail 4, sheet 2 of 2 on the submitted plans. The midspan clearance for these conditions is 6.5”.

12.

- a. Clearances over the river were determined using NESC Heavy Loading conditions as required by NESC 232.a and were above the NESC Table 232-1 17.5’ clearance requirement.
- b. Worst case midspan clearances between BayRing and Unitil neutral conductor were determined by considering Unitil at 32 degrees with ice and BayRing at 32 degrees and no ice in accordance with NESC 235C2b(1)(c). Midspan clearances of greater than 30” were maintained.

13. The required vertical clearance of 17.5’ over the 10 year flood elevation, was conservatively taken from NESC Table 232-1.7.a for water areas less than 20 acres that is suitable for sailing boats with an unobstructed surface area. The water surface area was determined based upon note 19 of NESC table 232-1 requiring a one mile segment of river including the crossing to be evaluated. The river width was taken to be 100’ for a total surface area approximately 12 acres.

NESC clearances between supply and communications cable, as identified in Table 235-5, of 40" at the structures and Rule 235.C.2.b, of 30" anywhere in the span, are maintained.

NESC clearances between communication conductors, as identified in rule 235.H, of 12" at the structure and 4" anywhere in the span, are maintained.

14. This crossing runs parallel to Dover Road adjacent to the bridge behind guardrails. Therefore, clearances for truck traffic were not considered for this crossing.

15. There are no NHDES or NHDOT permits necessary specifically for the construction of this crossing. Per Laurie Summer NHDES Wetlands Department as long as we are not doing any excavating or clearing within 250 feet of the Suncook River then we don’t need any permits from NHDES. Also, this is not a state highway crossing so we do not need NHDOT permits per Jim Lillis NHDOT.

16. The proposed crossing has been designed and will be constructed in accordance with NESC C2-2007 Grade B construction standards. The proposed crossing will be maintained and operated by BayRing Communications, its affiliates and contractors as required by the NESC.

17. BayRing Communications submits that the license petitioned for herein may be exercised without substantially affecting the rights of the public in the public water of the Suncook River. Minimum safe line clearances above the water surface and affected shorelines will be maintained at all times. The use and enjoyment by the public of the Suncook River will not be diminished in any material respect as a result of the overhead line crossing.

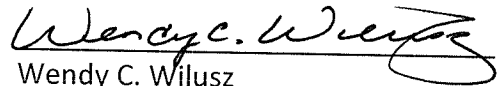
WHEREFORE, BAYRING COMMUNICATIONS respectfully requests that the Commission:

- a. Find that the license petitioned for herein may be exercised without substantially affecting the public rights in the public water which are the subject of this petition;
- b. Grant BayRing Communications a license to construct and maintain communication lines over and across the public waters of the Suncook River in Epsom, New Hampshire, as specified in the petition; and
- c. Issue an Order Nisi and orders for its publication.

Dated the 12th day of November 2010.

Respectfully submitted,

BAYRING COMMUNICATIONS
By Its Director of Operations



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