

APPENDIX B

X178

JOHNS RIVER

DALTON, NH

1. The X178 line (115 kV) over the Johns River in Dalton, NH, as shown in the attached Exhibit 4, was previously designed, installed, and operated in accordance with the National Electrical Safety Code (NESC) in place at the time of its installation.
2. Wire and structure specifications:
 - a. X178 Line:
 - i. Conductor: 795 KCML ACSR 36/1 with a 7#8 ALW shield wire
 - ii. Structure Details: Structure number 575 (Type A2) on the west side and structure number 576 (Type A2) on the east side (see Exhibits 5 and 6)
 - iii. Structure Heights: 51.4 feet above ground, and 51.4 feet above ground
3. The location of the structures creates a crossing span of 376 feet.
4. All conductors have been drawn in Exhibit 5 to show the maximum sag conditions in reference to the 100 year flood elevation.
5. The Petitioner will maintain and operate the clearance of the wire crossing over the river at a height no less than is required by the 2012 National Electrical Safety Code (NESC, Table 231-1). This distance is 18.6 feet for open supply conductors (up to 115 kV) for water areas not suitable for sail boating. The minimum height over the river is depicted on the attached profile drawing (see Exhibit 5).
6. The 100-year flood was established based upon a combination of field survey, and FEMA flood zone maps for that area (Zone AE, effective date: September 25, 2009). This elevation is based on the national Geodetic Vertical Datum of 1929 (NAVD 1929). For the purposes of calculating clearance, the 100-year flood elevation was used, as it was readily available. This is higher than the 10-year flood elevation required by NESC and provides a conservative clearance requirement (see Exhibit 5).
7. Since this is an existing crossing, a New Hampshire Department of Environmental Services (NHDES) Shoreland Impact Permit is not required.
8. It is not anticipated that abutters on either side of the river will be affected, as this is an existing line. The properties are encumbered by an existing Eversource easement as shown on Exhibit 5.

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