

APPENDIX A
385 LINE
COCHECO RIVER
ROCHESTER, NH

1. The location of this crossing is shown on the attached location map (Drawing No. D-7649-90A) marked as Exhibit 1.
2. The design and proposed construction of this crossing is shown on the attached PSNH Transmission Drawing entitled "385 LINE (345 KV) CROSSING BETWEEN STRUCTURES 15 AND 16, COCHECO RIVER, ROCHESTER, NEW HAMPSHIRE" (Drawing No. D-7649-90) marked as Exhibit 2.
3. Line 385 crosses the Cochecho River on two-pole, 100' wood tangent structures (Type EA-1) with a span of 683.49'. A detail drawing of this structure has been provided with the Petition as FIGURE 1. As shown on FIGURE 1, the bundled phase wires have an approximate separation at the structure of 26.0' horizontally. The OPGW cable is carried on the structures above the phase wires by a support bracket approximately 23' above and 12'-3" laterally from the closest phase wire.
4. The sag and clearance to the phase wires under weather conditions that would produce the minimum clearance between the phase wires and the OPGW cable would be a combination of winter weather factors. First, the phase wires would have to be at 30 deg. F. The OPGW cable would also be at 30 deg. F and would be iced with 1/2" of radial ice. Under these conditions the clearance would be 22.79' vertically and 11.81' horizontally from the fiber optic cable to the closest phase wire. This will produce a diagonal separation of 25.7' or $[(22.79')^2 + (11.81')^2]^{.5}$. Based on Section 235.C.2.a.1 and Table 235-6 section 2.a of the NESC, the minimum clearance required is 153.9", or approximately 12.8' [29" + (362.3 kV-50 kV) x 0.4"].



EXHIBIT 1

						DRAWN		Public Service of New Hampshire		Transmission Business	
						WNT					
						DESIGNED		LOCATION PLAN 385 LINE (345KV) STR. 15 TO STR. 16 COCHECO RIVER WATER CROSSING ROCHESTER, NEW HAMPSHIRE			
						CHECKED					
						MTM					
						APPROVED		SCALE		DATE	
						MTM		1"=2000'		05/29/2012	
								SHEET		DRAWING NO.	
								1 OF 1		D-7649-90A	
NO.	REVISION	DATE	DRWN	CHK	APPR						

