

1 **Q. Reference: “2020 Capital Budget Application,” Newfoundland Power, July 5, 2019,**  
 2 **Report 1.4 “Topsail Hydro Plant Penstock Replacement,” sec. 3.0, at p. 3.**

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 4 **Overall, the 38-year-old penstock is in poor condition. Issues have been**  
 5 **noted with all components of the woodstave penstock including cradles, steel**  
 6 **bands, wooden staves, site drainage and buried sections of penstock.**

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 8 **Please provide a list of Newfoundland Power’s woodstave penstocks, detailing**  
 9 **location, length, and year of construction.**

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 11 **A.** Table 1 provides a list of Newfoundland Power’s woodstave penstocks, including the  
 12 location, length of the woodstave section, original year of construction, and most recent  
 13 year of replacement.

**Table 1**  
**Woodstave Penstocks**

<b>Location</b>	<b>Original Construction Year</b>	<b>Replacement Year</b>	<b>Woodstave Length (metres)</b>
Lawn	1929	1981	286
Petty Harbour <sup>1</sup>	1900	1954	250
Pittman's Pond	1959	-	385
Port Union	1918	1984	137
Sandy Brook	1963	-	340
Topsail	1931	1981	1910
Tors Cove	1942	1986	704
Victoria <sup>2</sup>	1904	1959/1963	412

<sup>1</sup> The Petty Harbour penstock is constructed from 250 metres of wooden staves and 720 metres of steel. The steel section was installed in 1999.

<sup>2</sup> The Victoria penstock is constructed from 412 metres of wooden staves and 82 metres of steel. The steel section was installed in 1986. Approximately 238 metres of the woodstave section was replaced in 1959, with the remaining 174 metre section replaced in 1963.