

1 **Q. (Reference Application Schedule B, Walbournes Substation Refurbishment**
 2 **and Modernization, page 78) It is stated “As part of its preventative and**
 3 **corrective maintenance program, Newfoundland Power’s substations are**
 4 **inspected eight times annually.” What is the justification and cost associated**
 5 **with eight inspections annually?**
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7 A. Newfoundland Power operates 131 substations containing approximately 4,000 pieces of
 8 electrical equipment. Individual substations provide service to an average of 2,300
 9 customers, with the largest substation providing service to over 10,000 customers.
 10 Substations are critical to the reliable operation of the power system and must be
 11 inspected and maintained to operate to a high standard of reliability.
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13 An independent review of Newfoundland Power’s engineered operations was conducted
 14 by The Liberty Consulting Group (“Liberty”) in 2014 and found that the Company’s
 15 substation inspection, corrective maintenance, and preventive maintenance practices are
 16 consistent with good utility practices.¹
 17

18 Each substation is inspected on an approximate six-week cycle, for a total of eight
 19 inspections per year. Four of these inspections are considered long inspections, while
 20 the remaining four are considered short inspections. A long inspection is a detailed
 21 inspection that covers all major equipment in the substation and includes a checklist for
 22 each piece of equipment that is inspected. A short inspection is primarily intended as a
 23 means to check equipment integrity, such as oil leaks, and to ensure that no employee
 24 or public safety hazards are present in the substation.
 25

26 Table 1 provides the annual operating cost for substation inspections for the period from
 27 2018 to 2022F.

Table 1 Substation Inspection Costs 2018-2022F				
2018	2019	2020	2021	2022F
\$502,297	\$500,565	\$493,335	\$553,497	\$569,958

¹ See *The Liberty Consulting Group, Executive Summary of Report on Island Interconnected System to Interconnection with Muskrat Falls addressing Newfoundland Power Inc.*, December 17, 2014, page A-3.