

1 **In reference to Schedule “B”, page 41 of 82 – Transformers, with a project cost of**
2 **\$4,975,000:**

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4 **Q. Please provide the average life for stainless steel transformer tanks which the**
5 **company commenced purchasing in 2001. Please advise how long such stainless**
6 **steel transformer tanks have been on the market. Please advise as to the warranty**
7 **and what benefits there are for consumers to the purchase of longer life stainless**
8 **steel transformer tanks. Please provide any studies the company undertook prior to**
9 **initiating such purchases.**

10
11 A. The anticipated life of stainless steel transformer tanks is 40 years. The manufacturer
12 warranties the tank for 20 years. Stainless steel tanks are relatively new to the Canadian
13 market. These tanks have only been in widespread use in Atlantic Canada for the past
14 few years. At present, in addition to Newfoundland Power, stainless steel transformers
15 are used by Nova Scotia Power, Maritime Electric (Prince Edward Island) and
16 Newfoundland & Labrador Hydro. Stainless steel tanks have been used in Puerto Rico
17 and Jamaica for the past five to ten years and have been used in Nova Scotia on a trial
18 basis for ten years.

19
20 The most significant benefit to customers as a result of the Company purchasing stainless
21 steel transformer tanks is an increase in the reliability of electric service. In past years
22 the Company has experienced significant problems related to corrosion of transformer
23 tanks. In some geographic areas within the Company’s service territory there have been
24 transformers in service for only a few years that have been removed due to severe rusting.
25 Electrical failure of the transformer will occur when rust allows water to enter the tank.
26 This will result in an outage to the customers served by that transformer.

27
28 The Company has experimented with various types of special paint finishes to reduce the
29 impact of corrosion; however, none of these initiatives have prevented the steel tanks
30 from rusting. The use of stainless steel tanks will ensure a longer transformer life and
31 reduced power interruptions. Also, the Company expects a reduction in operating costs
32 as a result of having to respond to fewer power outage situations caused by rusted
33 transformers.

34
35 In addition to the benefits associated with reduced power interruptions, there will be a
36 positive environmental impact resulting from the use of stainless steel transformer tanks.
37 A rusted transformer tank may leak oil that could cause environmental damage and
38 expensive clean-up costs. The use of stainless steel tanks will significantly reduce the
39 possibility of transformer oil leaks.