

1 **Q. Please provide details as to how the cost of the materials for the replacement**
2 **penstock as proposed has varied, if at all, for the period 2001 to 2006 inclusive?**

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4 A. As part of the Rattling Brook Refurbishment Project, Newfoundland Power will be
5 considering steel and reinforced fiberglass as construction material options for the
6 replacement of the penstock.

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8 The North American market price for steel has increased 184% over the period January
9 2001 to June 2006. North American Steel Price Indices are shown in Table 1 on the
10 following page.

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12 There is only one supplier of fiberglass reinforced penstock material in the Atlantic
13 region; Reinforced Plastic Systems Inc. This company has indicated that based on annual
14 averages, fiberglass material costs have increased approximately 20% over the period of
15 2001-2006. The increase is associated with increased cost of resin coating used in the
16 corrosion liner required to protect the fiberglass pipe from chemical attack. The resin
17 that is used in the fabrication of the fiberglass penstock is produced from by-products
18 produced from crude oil. When the price of crude oil increases the cost of resin also
19 increases.

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21 In addition to the material price increases there have been annual increases for other
22 materials. The construction price indexes related to industrial structures increased from
23 2.2 to 7.7% per year, for the period 2001-2005.¹ This has also resulted in increases in the
24 cost of materials, such as concrete, related to the penstock replacement.

25
26 Detailed engineering estimates have shown that currently the steel and fiberglass options
27 are similar in cost. It is planned to tender both the steel and fiberglass options to ensure
28 competitive bidding and to proceed with the least cost option that meets all technical and
29 engineering requirements.
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¹ Statistics Canada, Construction price indexes (Non-residential building), 2001-2005, Industrial structures.

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| Table 1 North American Steel Price Indices² Hot Rolled Plate January 2001 to June 2006 | | | | | | |
|--|-------------|-------------|-------------|-------------|-------------|-------------|
| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| January | 65.90 | 60.40 | 73.60 | 79.10 | 186.20 | 175.80 |
| February | 65.90 | 60.40 | 73.60 | 92.30 | 177.60 | 177.60 |
| March | 65.90 | 60.40 | 70.30 | 116.50 | 176.50 | 177.40 |
| April | 65.90 | 62.60 | 70.30 | 134.30 | 179.60 | 176.30 |
| May | 65.90 | 62.60 | 70.30 | 143.50 | 172.30 | 184.60 |
| June | 65.90 | 71.40 | 68.10 | 153.40 | 169.90 | 187.30 |
| July | 65.90 | 71.40 | 68.10 | 164.80 | 162.90 | - |
| August | 65.90 | 71.40 | 68.10 | 165.30 | 164.40 | - |
| September | 65.90 | 75.80 | 70.30 | 199.30 | 174.90 | - |
| October | 63.70 | 75.80 | 70.30 | 198.20 | 180.70 | - |
| November | 60.40 | 75.80 | 70.30 | 189.70 | 179.80 | - |
| December | 60.40 | 75.80 | 70.30 | 191.00 | 178.70 | - |

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² Index of North American Steel Prices (January 1997 = 100) MEPS (International) Ltd.