

1 Q. Please provide details of the cost of the fluid replacement alternative, noted to be  
2 of a "similar cost" to replacing a transformer, delineated at page 8, lines 10-19, of  
3 Hydro's Report regarding the Replacement of Excitation Transformers (Bay  
4 d'Espoir);

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6  
7 A. Based on Hydro's most recent order, the cost of the perchloroethylene fluid to fill a  
8 transformer is \$6,500. Perchloroethylene is a discontinued product that is  
9 progressively more difficult to find as old stocks are depleted. This fluid also  
10 requires an acid scavenger additive at a cost of \$1,250 per transformer. Prior to  
11 replacing the fluid, the old fluid needs to be removed from the tanks and disposed  
12 of and then the tank needs to be cleaned. Disposal of old fluid containing PCB  
13 would cost \$8,000 per transformer. The transformer would still be classified as PCB,  
14 so this cost would be incurred again when the transformer is replaced. Tank  
15 cleaning would cost \$35,000 per transformer (based on the cost for a contractor to  
16 do a preliminary inspection of the failed units). This results in a total cost of \$50,750  
17 for the fluid replacement alternative, and there is a high risk that when inspected  
18 for cleaning, the transformer would be found unfit to refill and return to service.

19  
20 The cost to purchase each transformer is \$72,000. Project management,  
21 engineering, installation labour, and other costs are estimated to be the same for  
22 the fluid replacement and transformer replacement options.

23  
24 The replacement of the fluid is a short term solution to replacing the transformer,  
25 and, when considering either product availability or service life individually,  
26 replacing the fluid is not a practical alternative. The only feasible alternative is to  
27 replace the transformers.