

1 Q. Sunnyside Replacement Equipment: Please provide listings of the estimated versus  
2 the actual engineering, equipment, material, labor, and commissioning costs  
3 incurred for these elements of the project:

- 4 a. Moving T8 transformer from Holyrood
- 5 b. the new 230kV transformer and associated equipment for Holyrood
- 6 c. the repair of the B1L03 230kV breaker at Sunnyside
- 7 d. replacing the B1T1 -1 230kV disconnect switch and insulators
- 8 e. the B1T1 230kV Breaker (New breaker for 2015)
- 9 f. the B2T1 138kV breaker replacement
- 10 g. installation contracts for 2014 and 2015
- 11 h. the station service transformer and transfer switch replacement
- 12 i. high voltage risers and connectors for 2014 and 2015
- 13 j. power and control cables for 2014 and 2015
- 14 k. transformer protection panels and relays for 2014 and 2015
- 15 l. other major expenses.

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18 A. Please refer to the following table.

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20 Please note that commissioning costs were not tracked separately; however, they  
21 are included where applicable in the table below.

	Engineering		Labor		Equipment		Material	
	Estimate	Actual	Estimate	Actual	Estimate	Actual	Estimate	Actual
((\$000s)								
a. Moving T8 transformer from Holyrood	-	-	-	791.6	-	-	-	-
b. the new 230kV transformer and associated equipment for Holyrood	-	26.9	-	186.9	-	4.9	2,315.0	2,098.3
c. the repair of the B1L03 230kV breaker at Sunnyside	-	-	-	88.8	-	-	-	72.1
d. replacing the B1T1 -1 230kV disconnect switch and insulators	114.3	64.1	86.4	54.3	4.9	3.0	40.5	30.9
e. the B1T1 230kV Breaker (New breaker for 2015)	171.4	96.1	129.5	81.4	7.3	4.5	197.5	2.3
f. the B2T1 138kV breaker replacement	114.3	64.1	86.4	54.3	4.9	3.0	88.0	129.2
g. installation contracts for 2014 and 2015	-	-	1,900.8	1,034.1	-	-	-	-
h. the station service transformer and transfer switch replacement	57.1	32.0	43.2	27.1	2.4	1.5	68.7	26.3
i. high voltage risers and connectors for 2014 and 2015 <sup>1</sup>	-	-	-	-	-	-	122.9	102.3
j. power and control cables for 2014 and 2015 <sup>1</sup>	-	-	-	-	-	-		
k. transformer protection panels and relays for 2014 and 2015 <sup>1</sup>	-	-	-	-	-	-		
l. other major expenses	-	-	-	-	-	-	-	-

1. Items i, j & k were budgeted as a lump sum amount

1 The variances associated with line items a. and b. in 2014 were a result of the new  
2 transformer failing factory acceptance testing. The issues involved were  
3 subsequently rectified before the transformer was handed over to Hydro. This  
4 resulted in Hydro having to act on its contingency plan, the relocation of Holyrood  
5 transform T8 to the Sunnyside Terminal Station. As these costs were not part of the  
6 original capital budget estimate and submission, there were no estimated costs for  
7 the move and installation of the T8 transformer associated with the capital job.

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9 The remaining line items can be primarily attributed to lower than estimated  
10 material and construction contract pricing and no contingency funds being utilized  
11 in 2014. Variances are also attributable to the deferral of the initial portion of the  
12 purchase of the new 230 kV breaker B1T1 to 2015, the planned 2015 contract costs  
13 associated with the installation of the 230kv breaker B1T1 and lower than  
14 estimated project management and engineering costs.

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16 Hydro also received insurance proceeds related to events at Sunnyside Terminal  
17 Station of which \$1,826,000 was applied against the project cost.