

1 Q. **References: Tab 1; Volume II: Hydraulic Generation Refurbishment and**
2 **Modernization**

3 Please clarify why the budget on page 7 associated with the turbine and generator
4 six-year overhaul for Granite Canal (\$562,000) is significantly larger than that of the
5 similar project associated with Bay d’Espoir Unit 1 (\$202,000)?
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8 A. The budget for the six-year overhaul for the Granite Canal Plant is higher compared
9 to Unit 1 in Bay d’Espoir for two primary reasons.

- 10 1) The Granite Canal turbine is a Kaplan turbine, while Unit 1 in Bay d’Espoir is
11 a Francis turbine. A Kaplan turbine is a propeller-type turbine, which has
12 adjustable blades. For these blades to move, the turbine and generator shaft
13 on the unit is hollow and acts as a piston to adjust the blades as necessary to
14 efficiently harness energy from the water. For this project, it was identified
15 that oil leaks in the shaft piston arrangement require investigation, which
16 increased the labour requirement for the project. The investigation also
17 includes consultant costs to engage the Original Equipment Manufacturer.
- 18 2) The remote location of the Granite Canal Plant necessitates additional
19 labour costs for travel.