

1 Q. Explain in detail how the island grid and any components related thereto
2 would have had to have been designed, engineered or constructed differently
3 if the frequency converters had not been provided at the time that the Bay
4 d'Espoir project was put in service and provide copies of all reports on these
5 issues in Hydro's possession at the time the decisions were taken.

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8 A. Had the frequency converters not been provided when the Bay d'Espoir
9 project was put in service there were two alternatives at hand for the
10 development of the Island transmission grid. The first alternative would be a
11 single frequency system where all loads on the system would operate at the
12 same frequency, most likely 60 Hz. This alternative would involve the
13 conversion of all 50 Hz loads on the system to 60 Hz.

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15 The second alternative would be to continue to operate as two separate
16 systems. One at 50 Hz and one at 60 Hz. This alternative would involve
17 providing transmission and generation from Bay d'Espoir at both frequencies.

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19 The reports "Frequency Standardization Program – Presentation to Atlantic
20 Development Board" January 8, 1965, and "Presentation to the Royal
21 Commission on Electrical Power and Energy" July 1965, summarize the
22 issues surrounding system development at the time Bay d'Espoir was
23 constructed.