Q. Re page B-44: Indicate how many 'first generation' breakers are on Hydro's system, which four breakers are scheduled for upgrade under this project and how they were chosen, and how long a life extension is anticipated from these upgrades. Indicate whether there are any components in these breakers that will potentially become unavailable during the extended life of the breakers. Provide the capital cost of replacement of such breakers and indicate why the work described would not form part of the normal maintenance for breakers of these types.

A. There are a total of 46 of these first generation air-blast breakers on the Hydro system planned for refurbishment in this program. These breakers are in service on the 230, 138 and 69kV parts of the system. The DCVF, DCF and DLF are simply different model types and numbers used by the manufacturer to identify voltage classes and interrupting capacities.

The priority of refurbishments is based on the location of the breaker in the system, its duty cycle, maintenance history, and what the system impacts would be should that breaker fail. The four breakers planned for refurbishment in 2007 are:

Oxen Pond, breaker B1L18 serving line TL 218 (Holyrood to Oxen Pond).
Stony Brook, breaker B1L35 serving TL 235 (Stony Brook to Grand Falls).
Stony Brook breaker B3T2 serving transformer T2 which serves the Newfoundland Power Grand Falls/Bishop Falls distribution.
Sunnyside breaker B3T4 serving the Newfoundland Power distribution on the Bonavista Penninsula.

The refurbishments are anticipated to extend the service life of the breakers by an estimated 20 years. Based on the information available from the manufacturer and other utility experiences, there are no components that are expected to be unavailable during this period of extended life.

The capital cost to purchase and install a new replacement breaker is estimated at $250,000.

The refurbishment program is not routine maintenance performed to ensure this equipment achieves its service life. This project involves the replacement of a significant number of components to extend the useful life of the equipment by 20 years and as such is not considered normal maintenance.