Q. Is it the view of NP if there are any cost savings expected during the construction phase in 2007, those cost savings should offset the forecast replacement energy cost that is subject to the deferred recovery proposed by NP? If not, please explain the Company's position.

A. **A. Introduction**

Newfoundland Power has considered the issue of potential cost savings associated with the Rattling Brook refurbishment which might offset the replacement energy costs which will be incurred in 2007.

In considering this matter, Newfoundland Power has determined that there is no reasonable expectation that the construction phase of the Rattling Brook refurbishment will yield cost savings in depreciation expense, financing costs or general expenses capitalized in 2007.[1] Likewise, Newfoundland Power does not expect that cost savings are available in terms of increased hydro production at other hydro plants during construction.[2]

The only remaining potential source of cost savings during the construction phase of the Rattling Brook refurbishment would be in the Company's hydro plant operating costs. However, based upon the manner in which Newfoundland Power operates and maintains its hydro plants, the Company does not believe any operating cost savings will result from the Rattling Brook refurbishment to offset the forecast replacement energy cost.

B. Hydro Plant Operations

Newfoundland Power operates 23 hydroelectric plants which range in age from 8 to106 years of age and from 0.25 MW to 12 MW in capacity. The plant locations range from Rose Blanche on the southwest corner of the island of Newfoundland to Cape Broyle on the southeastern coast of the Avalon Peninsula.

Many of the plants are operated under full remote control from the System Control Centre in St. John's. The remaining plants are automated with local water management systems, therefore requiring a minimum of operator intervention.

Newfoundland Power operates its hydro plants on a system wide basis. This is reflected in the capital and operating budgeting processes.

Each year, Newfoundland Power pools its annual routine capital expenditures for replacement or rehabilitation of deteriorated hydro plant assets in a single capital

[1] Financing costs were addressed in the feasibility analysis relating to the Rattling Brook refurbishment which was before the Board in the *2007 Capital Budget Application*. General expenses capitalized are dealt with more fully in the Responses to Request for Information CA-20.0 and CA-21.0.

[2] This matter is dealt with more fully in the Response to Request for Information CA-15.0 NP.

project *Facility Rehabilitation (Pooled)*. Only larger refurbishments, such as the Rattling Brook Refurbishment, are segregated for capital budgeting purposes.

The operating budget for hydro plants is also done on an aggregate basis, similar to the capital budget. This approach reflects the relatively large number of small hydro plants and their production characteristics. In aggregate, the 23 hydro plants produce approximately 8% of electricity deliveries and 9% of plant investment (at cost).

C. Hydro Plant Operating Costs

Hydro plant operating costs, in aggregate, are typically stable on a year-to-year basis.

Table 1 shows hydro plant operating costs for the period 2005 through forecast 2007.

Table 1
Hydro Plant Operating Costs
2005 to 2007F
($000s)

	2005A	**2006F**	**2007F**
Labour	1,561	1,611	1,587
Non-Labour	691	710	701
Total	**2,252**	**2,321**	**2,288**

Over the period 2005 to 2007 total annual hydro plant operating costs are expected to vary by only approximately 3%. In each year labour costs represent approximately 70% of total annual operating costs related to hydro plant operations.

The stability of hydro plant operating costs reflects the manner in which Newfoundland Power manages its hydro plants. Because the hydro plants are remotely operated, field personnel have responsibilities for multiple installations. Engineering and operational planning is performed on a centralized basis and the costs are subsequently assigned to plants.

Both overall operating costs and labour costs specifically (the principal component) tend on a year to year basis to be more in the nature of fixed, as opposed to variable, costs in their behavior. Amongst other things, this reflects the practical reality that when a single plant requires less operating maintenance in a particular year, Newfoundland Power will assign staff to operating maintenance

projects at other locations. The mobile nature of the workforce allows Newfoundland Power to match human resources to work requirements across the system.

In 2007, certain specific operating costs associated with the Rattling Brook hydro plant are actually expected to increase. In 2005, water power rental rates paid to the Provincial Government totaled approximately $3,500 based on rates established 50 years ago. An application was recently filed to renew water rights for a 25 year term which is expected to come into effect in late 2006 or early 2007. In 2007, increased water power rental rates on forecast production of approximately 32 GWh (the reduced production expected as a result of the Rattling Brook refurbishment) are expected to be in the order of $25,000 due to the impending renewal of the Rattling Brook water rights.

In addition, many operating maintenance activities such as dam inspections associated with the Rattling Brook watershed will still be required in 2007 as the capital project is proceeding.

The combination of these general operating cost dynamics and specific 2007 Rattling Brook related operating costs results in no material change in Newfoundland Power's forecast hydro plant operating costs for 2007.

D. The Impact of Hydro Plant Outages

In 2007, the Rattling Brook hydro plant is expected to be out of service for approximately 8 months with a resultant loss in generation of 38.2 GWh or 55% of normal production. While this might suggest that there will be reduced operating costs associated with Rattling Brook in 2007, Newfoundland Power does not expect a reduction in hydro plant operating costs to occur.

Newfoundland Power has undertaken a number of significant hydro plant refurbishments in recent years. Each of these capital projects has resulted in months of scheduled plant downtime on an annual basis, as shown in Table 2. Unscheduled plant outages are also shown.

Table 2
Major Hydro Plant Outages[3]
2005 to 2007F
(cumulative months)

	2005	2006[4]	2007F
Scheduled	7	13	8
Unscheduled	5	9	-
Total	**12**	**22**	**8**

While there can be significant variability in major hydro plant outages from year to year, as shown in Table 2, such outages do not generally result in changes in annual hydro plant operating costs as shown in Table 1. This is partially because of Newfoundland Power's approach to hydro plant operations (as indicated in *B. Hydro Plant Operations* above) and partially because of the nature of hydro plant operating costs (as indicated in *C. Hydro Plant Operating Costs* above).

E. Conclusion

Newfoundland Power has examined its 2007 hydro plant operating costs and determined no cost savings will result from the Rattling Brook refurbishment to offset the forecast energy replacement cost.

[3] Plant outages in excess of 1 month.
[4] To October 31, 2006.