

Q. Explain how a demand/energy rate for Newfoundland Power would increase volatility in the earnings of both Hydro and Newfoundland Power from year to year (Brockman, Direct Testimony, page 28, lines 20 to 22).

A. The required earnings of Hydro are currently protected through the Rate Stabilization Plan from variations in the forecast of: energy usage of Newfoundland Power; hydraulic production; and, the cost of No. 6 fuel required for production at Holyrood.

The proposed cost-of-service study in JAB, Exhibit 1, page 9 of 94 shows that the revenue requirements for Newfoundland Power are based on demand costs of \$86.9 million, energy costs of \$102.3 million, and customer costs of \$1.2 million (excluding the rural subsidy). If we removed the \$86.9 million (45% of the total cost) of the demand-related revenues from the protected status of the RSP, Hydro's earnings will be more volatile, since any variation in that portion of the revenue will not be subject to recovery through the RSP. In addition, demand is generally more volatile and more difficult to forecast than energy.

The degree of earnings volatility for Newfoundland Hydro would depend on the structure of the tariff implemented. For example, a wholesale tariff with a high percentage of the demand revenue fixed to a firm demand level would introduce minimal earnings volatility. However, a wholesale tariff in which the demand revenue fluctuated with the customers demand requirements from month to month could introduce significant earnings volatility.

Newfoundland Power's rates are set by the Board to allow it the opportunity earn a reasonable return on rate base. Variations in the revenue from Newfoundland Power's customers are protected from volatility in hydraulic production and weather by the use of a weather normalization reserve. Monthly RSP charges from Hydro are passed on to customers through a Rate Stabilization Account adjustment that is included in the rate applied to customers' bills and updated annually.

Under the energy-only wholesale rate, the revenues of Newfoundland Power are strongly correlated with the purchase expense. If purchase expense increases in a month, energy revenues also increase a predictable amount. The revenues of Newfoundland Power are broken down (approximately) in the following manner; 75% from energy charges, 10% from demand charges, and 15% from other charges (i.e., mainly customer and street and area lighting). The reason for the high percentage from energy charges is because approximately 60% of the total revenue is from the Residential class, for which there is no demand charge.

Assume a demand/energy wholesale tariff was implemented and the energy component was set to recover 60% of the costs and the demand component was set to recover 40% of the costs. Newfoundland Power would not change the structure of its retail rates as the existing rate structures are reasonable. The effect of the change in the wholesale tariff

would, however, have a significant effect on the correlation between revenue and purchase expense.

If the demands of Newfoundland Power customers were 5% above forecast (approximately 50 MW) due to a few very cold winter days, there would likely be minimal impact on revenues to Newfoundland Power (as the vast majority of revenues from the weather sensitive loads come from energy charges). However, purchased power expense (under the assumed demand/energy tariff) could increase by 2% (i.e., 5% x 40% of wholesale costs recovered in demand charges). Two percent of the Hydro's proposed annual revenue from Newfoundland Power is approximately \$4.2 million. For each \$90,000 increase in expenses, the return on rate base for Newfoundland Power decreases by approximately 1 basis point. So a \$4.2 million dollar increase in annual purchase expense would reduce return on rate base by 45 basis points. The full range of return on rate base set by the Board for Newfoundland Power is ± 18 basis points.

With the existing energy-only wholesale tariff, Newfoundland Power would incur no additional purchased power expense in the scenario above. It is this potential revenue volatility that has caused concern for Newfoundland Power in trying to negotiate an agreement with Newfoundland Hydro in the determination of a demand/energy rate.