

Q. Reference: Answer of Ms. McShane to CA-NP-370:

Please indicate what incremental ROE Ms. McShane would judge Newfoundland Power to warrant should the Board deem Newfoundland Power a 40% common equity ratio? Please provide all calculations.

A. As noted at page E-5 of Ms. McShane's evidence, "It is impossible to state with precision whether, within a specific range of capital structures, raising the debt ratio will leave the overall cost of capital unchanged or result in some decline. However, what is indisputable is that the cost of equity does change when the debt ratio changes." Ms. McShane's Appendix E discusses three approaches that can be used to estimate the change in the cost of equity as the capital structure changes. All are based on the simplifying, if unlikely, assumption that the cost of debt remains constant over the range of capital structures. The largest changes in the cost of equity occur under the first approach, which is based on the premise that the after-tax weighted average cost of capital is constant as the equity ratio changes. The smallest changes in cost of equity occur under Approach 2, premised on a decline in the after-tax cost of capital as the equity ratio declines. The third approach, which recognizes that, for utilities, the benefits of the corporate income tax deductibility of interest expense accrue to ratepayers, results in changes in the cost of equity for a given change in equity ratio that fall between those indicated by the other two approaches. The table below was prepared using Approach 3, whose results are virtually identical to the average of the results of Approaches 1 and 2. As the 10.5% ROE used as a point of departure was developed using a forecast 3.5% long-term Canada bond yield, the cost of new utility debt that is required to make the ROE estimates was based on the same forecast, i.e., the cost of new debt was estimated at 5.05%, reflecting a spread to the long-term Canada bond yield of 1.55%.

The indicated ROE at a 40% common equity ratio is 11.2%, calculated as follows:

Weighted Average Cost of Capital 45% Equity			
	Ratio	Cost	Weighted Cost
Debt	55%	5.05%	2.78%
Equity	45%	10.50%	<u>4.73%</u>
			7.50%
WACC Unchanged at 7.50% Cost of Equity at 40% Equity			
	Ratio	Cost	Weighted Cost
Debt	60%	5.05%	3.03%
Equity	40%	X	<u>4.47%</u>
			7.50%

Solve for ROE (X)			
	Ratio	Cost	Weighted Cost
Debt	60%	5.05%	3.03%
Equity	40%	11.2%	<u>4.47%</u>
			7.50%