Re: p. 34, lines 4-5, and p. 35, line 1

Dr. Vilbert states, “It may seem counter intuitive to believe that the revenue requirement increases by replacing ‘expensive’ equity with ‘cheap’ debt, but debt has no tax advantage for Hydro, whereas equity does.”

Could Dr. Vilbert please clarify what he means by the tax advantage for Hydro from equity?

Response:

The tax advantage is in relation to Investor Owned Utilities (“IOU’s”). IOUs pay interest on debt before paying corporate incomes taxes but the return on equity comes from after-corporate-income-tax earnings. Thus, IOU’s must generate income before tax of $X/(1-tax rate) to pay their shareholders $X on equity. Hydro does not pay income taxes so Hydro needs an income before taxes of only $X to pay $X to shareholders. For an equal amount of equity in its capital structure, Hydro’s revenue requirements are less than an IOU’s by the amount of income taxes. On the other hand, Hydro’s after-tax cost of debt is higher than an IOU’s because the IOU can deduct its interest payments from its taxable income.

Over the broad middle range of capital structures, substituting debt for equity by an IOU does not affect the IOU’s revenue requirement because the tax savings on debt are offset by the increased return on equity resulting from the increase in financial risk. For Hydro, the revenue requirement is not constant because there are no tax savings from substituting debt for equity to offset the increased return on equity due to financial leverage. Recall that for an IOU, the cost of equity goes up enough to offset the tax savings from debt. Because there are no tax savings from debt for a Crown Corporation, the revenue requirement increases.