

Dr Booth's Answers to the General Questions from Board Staff

3. Impact on Sector Rationalization

What impact (positive or negative), if any, might changing capital structure for most Ontario electricity distributors have on the prospects of physical consolidation of electricity distributors?

Allowing higher common equity ratios for smaller utilities will encourage consolidation. The capital markets are size conscious and a holding company can then buy several smaller utilities and access the capital markets as a larger utility holding company with a lower common equity ratio. This effectively transfers the tax advantages to issuing debt away from the ratepayers to the shareowners in the holding company.

4. Return on Equity – Cannon Methodology

Several parties have suggested that the Board retain the existing method of calculating the ROE as documented in Dr. Cannon's paper "Determination of Return on Equity and Return on Rate Base for Electricity Distribution Utilities in Ontario", dated December 1998, and consistent with the ROE methodology used in rate regulation of natural gas distributors under the Board's "Draft Guidelines on a Formula-Based Return on Common Equity for Regulated Utilities". If the Board was to retain the current methodology:

- a. Should the ROE be updated for May 1, 2007 distribution rate adjustments?
 - b. What should the starting point for the ROE applicable to electricity distributors (e.g., 9.88% from the first Distribution Rate Handbook or 9.00% as calculated in the 2006 Electricity Distribution Handbook)?
 - c. If updates to the ROE are not done annually (e.g. under IRM), then how should the ROE update be done at the time that distributors file rebasing applications?
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- a) The ROE should be set for the first rate filing for each Disco based on the Board formula applied to the forward test year at that time. This usually means one month prior to the start of the test year.
- b) 9.00% as calculated for the 2006 rates.
- c) Yes. The ROE should be trued up at the time of the regular review and reset according to the formula. At that time the utilities can file testimony if they disagree with the results of resetting the allowed ROE back to the formula allowed ROE.

5. Return on Equity and Rebasing

The staff proposal currently would have the IRM price cap formula applied to existing Board-approved distribution rates, largely set through 2006 EDR applications.

- a. Does the change in the inflation or price escalator factor of the price cap index, measured by GDP-IPI (Final Domestic Demand) as proposed by staff, reasonably track or proxy also the changes in the debt rates and market returns (and therefore the distributors ROE) year to year?
- b. If so, is an ROE adjustment required in 2007 and while a distributor is subject to the price cap index? What are the implications of not changing the Return on Equity (ROE) currently allowed in a distributor's approved distribution rates until the distributor files a Cost of Service (rebasing) rate application during the period 2008 to 2010?

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- a) No. The cost of capital includes compensation for expected inflation. For example the real rate is about 1.6% and the nominal long Canada rate 4.2%, the difference is largely accounted for by expected inflation. However, there is no indication of which *particular* inflation rate is built into the capital market's expectations. However, the price cap should only be apply to the non-capital costs. Otherwise, there is double counting. Investors are compensated once through the inflation rate built into the cost of capital and then again through the price cap, if it is applied to the overall distribution rates.

To take an extreme example suppose inflation is 10% and the real cost of capital is zero. If the rate base is 100 and there is \$10 of other costs, then the revenue requirement is \$20 (\$10 for cost of capital and \$10 for other costs). If the utility has no growth in rate base and inflation affects its other costs at the same rate, then next year the revenue requirement should be \$21, that is \$10 for capital costs and \$11 for other costs. This means an increase of the inflation rate minus 5%.

If the revenue requirement is allowed to increase by the inflation rate minus a 1% "productivity factor," then next year the revenue requirement would be \$21.8, subtracting out the increased other costs (\$11) you get a return of \$10.80. However, if there is no change in the rate of inflation or the rate base the cost of capital should still be \$10. In this extreme example the investors will gain \$0.80, even if there are no productivity gains at all. In fact the "productivity factor" is just a smoke screen for double counting the impact of inflation.

The basic message is that there is double counting involved in the application of the expected rate of inflation under price cap regulation: its severity

depends on the growth in the rate base and changes in the ROE due to changing expected inflation. This is one reason why in other jurisdictions incentive regulation has been applied to non-capital costs only and a formula adjustment applied to the cost of capital each year.

- b) Conceptually the ROE (and the entire cost of capital) should not be part of a price cap formula. Whether the effects are material depends on the expected rate of inflation and the proportion of capital costs to other costs.

6. Capital Structure

Several distributors have raised concerns about migrating quickly to a new capital structure. Consider a scenario whereby the Board were to phase in the change from the existing size-related capital structure to the common structure, for rate-making purposes, over several years. For example, a large distributor with over \$1 billion in rate base might move from its deemed 35% equity to 40% over two years, to mitigate possible rate impacts on ratepayers. As another example, a small distributor with a rate base of less than \$100 million could migrate from its current deemed 50% equity to 40% equity over three years, to mitigate the impact on corporate restructuring and on the distributor's shareholder(s). This change in the capital structure would be accomplished through the K-factor while the distributor is under an incentive rate mechanism (IRM) scheme, and a distributor migrating to the new capital structure would also factor such migration into its Cost of Service rebasing application.

- a. What are the implications, advantages and disadvantages of such an approach?
- b. Are there alternative approaches that the Board might consider?

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- a) There are no disadvantages, capital structure changes are normally relatively straight forward to make. If a firm wants to increase its equity ratio it can retain earnings and then make a loan to the municipality to *defeas*e some of the debt on its balance sheet or simply pay back bank loans. If it wants to decrease its equity ratio it can borrow from the markets and buyback its shares. Allowing a municipality to smooth these effects may have minor "rate shock" benefits.
- b) An easier way to regulate the Discos is to impute a cost of capital (and tax component) based on Toronto Hydro each year and then apply PBR to the non-capital costs. The utilities would then be allowed to manage their affairs at their discretion with a three or five year true up in a generic hearing. Toronto Hydro is the best benchmark as a pure Disco with excellent financial market access, and without significant transmission operations