Case Study:
Canadian Regulated Utility Return on Equity

Background

Concentric Energy Advisors ("Concentric") has been actively involved in the recent cost of capital proceedings for utilities across Canada, including the ATCO Utilities Group ("ATCO"), Enbridge Gas Distribution ("Enbridge"), Hydro One Networks ("Hydro One") and the Coalition of Large Distributors ("CLD"). As you may know, most Canadian regulators have relied on a formulaic approach to setting a utility's return on equity ("ROE"). ROE formulas across Canada are similar in that ROEs are adjusted based on changes in long-term government bond yields. Since the inception of the first formula in British Columbia in 1994, yields on government bond yields have been declining thereby causing authorized ROEs to decline. Last year, the National Energy Board ("NEB") vacated the formula for Trans Quebec & Maritimes Pipeline ("TQM"). More recently, the NEB announced that the formula is no longer in effect for all of the pipeline companies that it regulates. Concentric's work on these matters has been a direct input or cited by other witnesses and the Boards in several related proceedings.

Concentric's Role

In 2007, Concentric was engaged by the Ontario Energy Board ("OEB" or the "Board") to conduct a detailed analysis of differences between ROEs for Ontario's gas utilities and those elsewhere in Canada, the U.S. and select foreign countries. Concentric was also retained in 2007 by Hydro One and the CLD to conduct a similar analysis focusing on the differences in ROEs for Ontario's electric utilities and those elsewhere in Canada, the U.S. and select foreign countries. These reports examined methods of determining ROEs, relating the differences in ROE awards, the competition for capital between Canada and the U.S. utilities, and the treatment of affiliates from an ROE perspective.

In 2008, Concentric was engaged by ATCO to recommend a generic ROE and capital structure for each of the four utility sectors operating in Alberta: gas transmission, gas distribution, electric transmission, and electric distribution. ROE estimates were developed using discounted cash flow ("DCF"), capital asset pricing model ("CAPM"), risk premium and comparable earnings methodologies; including comparisons with recently allowed ROEs from other jurisdictions and pipeline settlements in Canada. Concentric's recommendations were supported by detailed financial, operating, and regulatory risk comparisons between U.S., Canadian, and Alberta utilities. Concentric reviewed relative economic conditions, regulatory processes, rate structures, financial and operating metrics, credit rating practices, and the competitive environment, for each sector, to draw conclusions on the riskiness of Alberta utilities relative to other Canadian and U.S. counterparts.

In April 2009 and October 2009, Concentric submitted written comments and a detailed cost of capital analysis to the OEB on behalf of Enbridge, Hydro One and the CLD. The submission was in response to the Board's invitation to interested stakeholders to provide comments to help the Board better understand whether current economic and financial market conditions had an impact on the reasonableness of the cost of capital parameter values calculated in accordance with the Board's established cost of capital methodology; and to help the Board determine if, when, and how to make any appropriate adjustments to those parameter values.

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Results and Next Steps

Recently, there have been four important provincial decisions pertaining to the continued use of the formula and related cost of capital issues. The table on the following page is a high level summary which contrasts the major elements of each decision. Each of these decisions reflects the unique perspectives of the provincial Boards and the evidence evaluated, but there are some common threads:

1. The current formula was suspended or eliminated in 3 of the 4 provinces; only Quebec retained the existing Formula after rebenchmarking ROE.
2. All Boards, with the exception of Quebec, found data on U.S. utilities to be relevant in reaching their decisions.
3. All Boards recognized, to some degree, the problems associated with exclusive reliance on the CAPM or equity risk premium ("ERP") methods. They all relied upon multiple methods in reaching their decisions, and there was universal agreement with the *Hope* standard that the results, and not the method, determines fairness.
4. These decisions allowed ROEs in the 9.0 – 10.1% range for the 2009-2011 rate periods, a considerable improvement over formula ROEs approaching 8% for 2009.
5. Equity levels were not similarly impacted, with only modest changes from prior levels.

While these decisions, taken as a whole, reflect an encouraging trend toward a North American perspective on cost of capital, they also reveal the need for additional analysis and evidence to assist regulators with the evaluation of relative risk across jurisdictions and between companies.

Public Utilities Fortnightly is publishing an article in May by Concentric on these developments and implications.

Attachments: ROE and Capital Structure—Recent Decisions Table

RETURN ON EQUITY AND CAPITAL STRUCTURE – RECENT CANADIAN DECISIONS					
		Alberta	Quebec	Ontario	British Columbia
Docket Number		Decision 2009-216 Application No. 1578571 Proceeding ID. 85	D-2009-156 R-3690-2009	EB-2009-0084	Order Number G-158-09
Date		November 12, 2009	December 7, 2009	December 11, 2009	December 16, 2009
Methodology		Reliance on multiple tests (CAPM, DCF, high grade corporate bonds spreads[i], historical stock market returns[ii])	Primary – CAPM (with consideration of ECAPM and DCF; rejects market-based ATWACC proposed by Gaz Metro)	Reliance on multiple tests (CAPM, DCF, ERP)	Primary weight – DCF Lesser weight – ERP (including CAPM) Minimal weight – Comparable Earnings
U.S. Utilities		Accepts comparability of business risks, but not regulatory risks; so allowed returns not considered, but expected market determined returns considered[iii]	Inconclusive evidence	Relevant and objective source for comparable data[iv]	Relevant source of data[v]
CAPM & ERP	Long Canada Bond Forecast	4.13% – 4.50%	4.23% – 4.50%	4.25%	4.30%
	Equity Risk Premium			5.50%[vi,vii]	4.95% – 5.95%
	ERP Estimate			9.75%[vi]	9.50% – 10.50%[vi]
	Beta	0.50 – 0.63	0.50 – 0.55		0.60 – 0.66
	Market Equity Risk Premium	5.00% – 5.75%	5.50% – 5.75%		5.00% – 6.00%
	CAPM Estimate	7.63% – 9.12%[i,vi]	7.53% – 8.41%[vi,viii]		8.05% – 9.05%[vi,ix]
DCF		8.80% – 9.30%[vi]			9.25% – 10.25%[vi,x]
Comparable Earnings		9.25% – 10.30%			10.50% – 11.50%
Flotation Cost Adjustment		0.50%	0.30% – 0.40%	0.50%	0.25%
ROE		**9.00%**	**9.20%**[xi]	**9.75%**	**TGI – 9.50%**[xii] **TGVI & TGW – 10.00%**
Capital Structure		Utility-specific common equity ratios (electric transmission: 36% & 37%; natural gas transmission: 45%, electric distribution: 39% & 41%, natural gas distribution: 39% & 43%; retailers: 39%)	38.5% equity	Maintain current approach (60% debt, 40% equity for electricity distributors; determined on case-by-case basis for electricity transmitters, generators, and natural gas utilities)	40% equity[xiii]
Formula		Suspended	Yes (maintain existing formula)	Yes (corporate bond yield variable added to formula)[xiv]	Eliminated; directs TGI to study alternatives[xv]
Long Canada Adjustment Factor			0.75	0.50	
Corporate Bond Yield Adj. Factor				0.50	
Review		2011 (2 years)		2014 (5 years)	*See note xv*

i Commission concludes that 0.50% must be added to CAPM estimates to account for the inflated spread between long Canada bond yields and high grade corporate bonds

ii Commission concludes that it would be unreasonable to award stand-alone utilities an ROE in excess of historical stock market returns (midpoint = 9.775%)

iii "…Alberta regulated utilities must, on a risk-adjusted basis, compete for their capital requirements with alternative investments of comparable risk across North America. Therefore, U.S. information on U.S. utility returns is relevant to a determination of the fair return for Alberta regulated utilities." (AUC Decision 2009-216, pg. 37)

"The Commission agrees that the business risks, other than regulatory risks, of the utility business are similar between Alberta utilities and counterparts in the U.S." (AUC Decision 2009-216, pg. 38)

"The Commission agrees, however with Dr. Safir that there have been some significant differences in regulatory policy between the U.S. and Canada which have created additional regulatory risk for American utilities." (AUC Decision 2009-216, pg. 41)

"The observation that FERC regulation my lead to higher regulatory risk leads the Commission to discount allowed FERC returns from a consideration of the appropriate fair return for Alberta utilities. As a consequence, the Commission is left with data relating to proxy groups involving smaller, mostly local, gas and electric distribution companies to consider." (AUC Decision 2009-216, pg. 43)

"The Commission considers that there is ample evidence to demonstrate that the support provided by the legislative and regulatory context in Alberta materially reduces regulatory and other business risks of Alberta utilities when compared to the evidence proffered on U.S. utilities in this proceeding." (AUC Decision 2009-216, pg. 45)

"…U.S. allowed returns should not be used in determining a fair return for Alberta utilities." (AUC Decision 2009-216, pg. 54)

"Accordingly, expected market determined returns for U.S. utilities may be used on a market risk-adjusted basis in assessing a fair return for Alberta utilities…" (AUC Decision 2009-216, pg. 57)

iv "The Board is of the view that the U.S. is a relevant source for comparable data. The Board often looks to the regulatory policies of State and Federal agencies in the United States for guidance on regulatory issues in the province of Ontario…As a result, the Board concludes that North American gas and electric utilities provide a relevant and objective source of data for comparison." (OEB EB-2009-0084 Report of the Board, pg. 23)

v "As for the US data, the Commission Panel agrees with the NEB and AUC that utilities in Canada need to compete for capital in the global market place, and regulatory agencies in Canada have to ensure that utilities subject to their jurisdiction are allowed a return that enables them to do so. In addition, the Commission Panel continues to be prepared to accept the use of historical and forecast data of US utilities when applied: as a check to Canadian data, as a substitute for Canadian data when Canadian data do not exist in significant quantity or quality, or as a supplement to Canadian data when Canadian data gives unreliable results. Given the paucity of relevant Canadian data, the Commission Panel considers that natural gas distribution companies operating in the US have the potential to act as a useful proxy in determining TGI's capital structure, ROE, and credit metrics." (BCUC Decision, pgs. 15-16)

vi Includes flotation cost adjustment

vii Equals average ERP implied by all evidence and submissions

viii Includes 0.25% – 0.35% adjustment to account for Gaz Metro's specific business risks

ix "…the Commission Panel agrees with the practice of the AUC of adding 50 basis points to CAPM estimates and adopts it in this proceeding." (BCUC Decision, pg. 65)

x "The Commission Panel notes Dr. Booth's suggestion that the risk premium required by US utilities is between 90 and 100 basis points more than utilities in Canada…Accordingly, the Commission Panel will reduce its DCF estimate by between 50 and 100 basis points…" (BCUC Decision, pg. 51)

xi Includes 0.25% – 0.35% adjustment to account for Gaz Metro's specific business risks

Includes 0.25% – 0.50% adjustment to account for the results of methodologies other than CAPM

Includes 0.25% – 0.55% adjustment to account for the financial crisis for 2010 and 2011

xii "The Commission has determined that the ROE for TGI will continue to serve as the Benchmark ROE for FortisBC and any other utility in BC that uses the Benchmark ROE to set rates." (BCUC Decision, pg. ii)

xiii TGVI and TGW to file with their next revenue requirement applications evidence of the equity component that best reflects their respective long-term business risks.

xiv $ROE_t = 9.75\% + 0.5 \times (LCBF_t - 4.25\%) + 0.5 \times (UtilBondSpread_t - 1.415\%)$

$LCBF_t$ is the Long Canada Bond Forecast for the test year

$UtilBondSpread_t$ is the average spread of 30-year A-rated Canadian utility bond yields over 30-year Government of Canada bond yields over all business days in the month three months in advance of the implementation date for rates

xv "The Commission has accordingly directed that the automatic adjustment mechanism be eliminated. However, it has also directed TGI to complete its study of alternative formulae and report to the Commission by December 31, 2010." (BCUC Decision, pg. ii)