



October 30, 2009

Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge Street
27th Floor
Toronto ON M4P 1E4

Dear Ms. Walli,

Final comments submitted on behalf of Enbridge Gas Distribution, Hydro One, and the Coalition of Large Distributors in the Consultation on the Cost of Capital, Board File No.: EB-2009-0084

We are pleased to provide our final written comments to you with respect to the above noted matter and make the attached submission in response to the Board's October 5, 2009 letter related to the Consultation on Cost of Capital - Final Written Comments (EB-2009-0084). Three paper copies will be provided to the Board and an electronic version has been filed through the Board's web portal.

Additionally, we would like to take this opportunity to address the evidence filed yesterday afternoon by the Consumers Council of Canada (the "Council"), the Canadian Manufacturers & Exporters ("CME"), and the Vulnerable Energy Consumers Coalition ("VECC"), regarding the Moody's Global Infrastructure Finance Report on Regulated Electric and Gas Utilities, dated August 2009.

Although Concentric's review of this report has been cursory by virtue of the time allotted to comment (less than 24 hours), Concentric maintains that the referenced last minute submission changes nothing about the merits of or the conclusions drawn from the comprehensive analyses Concentric has put forth in this proceeding. Though this report may attempt to justify the disparity in credit metrics from country to country that are required to maintain an investment grade credit rating, it does not negate the fact that an A-rated company in the U.S. is comparable to an A-rated company in Canada from a credit standpoint. Further, the Moody's Report is provided from a bond holder's perspective and does not attempt to address the very different risks of an equity holder and what is required to achieve a fair and reasonable return on equity.

Concentric and other participants in the consultative process have taken great care to abide by the evidentiary rules honored in regulatory proceedings in both the U.S. and Canada. Every element of the final comments we are submitting to the Board is based on either the written submissions filed in September or the stakeholder conference which followed. Concentric takes exception to the manner in which this additional evidence is submitted, particularly when the submittal letter accompanying the evidence indicated that it was available as early as October 16, 2009, and could have been provided 13 days earlier. Notwithstanding, our comments regarding this evidence are summarized below:



- With 50 separate regulatory regimes in the U.S., there is greater dispersion of regulatory risk, but by choosing a proxy group of companies that operate in favorable and supportive regulatory environments; this risk can be aligned with the Canadian companies. Indeed Concentric’s comprehensive comparative risk analysis was based entirely on U.S. companies with like credit ratings to the Ontario utilities.
- The fact that Moody’s feels that regulation *generally* is more supportive in Canada does not mean that all Canadian jurisdictions have regulation that is more supportive than all U.S. jurisdictions. Only one Canadian utility, Emera is considered in this report, currently rated Baa2, which is lower than the entire group of U.S. electric companies included in Concentric’s risk analysis. No Ontario utilities were included in Moody’s analysis.
- Because Moody’s does not provide a specific basis for its general finding, it is impossible to determine the basis for its vague, general opinion. In contrast, the Concentric Report carefully selects a proxy group of like-rated companies and performs a detailed comprehensive risk analysis. The results of those analyses are not affected whatsoever by the Moody’s report.
- Even Dr. Booth acknowledged in the Q&A following his oral presentation that he himself has identified a like risk group of U.S. utilities as a proxy for the Canadian utilities. An excerpt from that discussion is provided:

Dr. Booth: “...it is possible to form samples of low-risk US utilities that are equivalent to the total population in Canada.”¹

- Moody’s indicated on page 6 of the referenced report, that among the countries that are considered less risky than the U.S. are Japan, Canada and Australia. Note that Australia recently passed a national ROE for its utilities of 11 percent. <http://www.aer.gov.au/content/index.phtml/itemId/728192>
- Moreover, Moody’s does not address the Fair Return Standard and evaluates risk only from a bondholder’s perspective only. As Concentric stressed, the analysis and concerns of a bond rating agency are primarily with whether certain coverage ratios are met, and whether debt will be repaid. Bond rating agencies are not concerned with whether the common equity is receiving a just and reasonable rate of return or indeed whether Canadian and U.S. equities have comparable risks.

¹ Booth Transcript, October 6, 2009, p.60



- The NEB has accepted the relevance of U.S. utilities for determining comparable returns with far greater consideration than evidenced in the Moody's report.

Concentric would like to take this opportunity to thank the Board for the opportunity to participate in this very important consultation.

Sincerely,

A handwritten signature in black ink that reads "J. M. Coyne". The signature is fluid and cursive, with the first and last letters of each name being capitalized and prominent.

James M. Coyne
Senior Vice President
Concentric Energy Advisors, Inc.

**IN THE MATTER OF
a Consultation by the Ontario Energy
Board on the Cost of Capital**

**FINAL WRITTEN COMMENTS OF
CONCENTRIC ENERGY ADVISORS**

On behalf of Enbridge Gas Distribution, Hydro One,
and the Coalition of Large Distributors

October 30, 2009

I. INTRODUCTION

In this consultative proceeding, the Ontario Energy Board (“OEB”) has asked for an evaluation of whether the Formula used to set the allowed rate of return on common equity (“ROE”) for utilities continues to meet the Fair Return Standard, and whether re-calibration and modification of the Formula is warranted. The OEB is not alone in this endeavor as regulators throughout Canada have responded to widely-perceived problems by re-visiting the formulae they use. The National Energy Board (“NEB”), in particular, recently abandoned altogether the formulaic approach that it has used since the mid-1990’s. Similarly, the focus of the discussion in this consultative process indicates that, after a dozen years, the Formula used in Ontario has not adequately tracked the required return on common equity.

With the record established in this consultative proceeding, the OEB has the opportunity and jurisdiction to re-calibrate and modify its ROE Formula so as to ensure that the allowed returns are sufficient to meet the Fair Return Standard. Meeting that standard is both a legal requirement and an economic necessity for ensuring that Ontario utilities are able to attract the large amounts of capital they will need to meet the demands of both the market and Ontario energy policies.

This submission summarizes the major issues and facts brought forth in this proceeding to assist the Board in its analysis and decision-making. It first discusses some of the important facts that demonstrate the problems with the Formula in its current incarnation; and then describes the modifications proposed by Concentric Energy Advisors (“Concentric”) on behalf of Enbridge, Hydro One, and the Coalition of Large Distributors. Finally, it documents the substantial degree of agreement among the parties concerning the various issues raised in this consultation. The weight of the evidence adduced compels a conclusion that the return produced by the Formula is significantly deficient and that changes to the Formula are required at this time.

II. PROBLEMS WITH THE CURRENT METHOD

As many participants and presentations in the consultative process demonstrated, the results of the current method do not satisfy the requirements of the Fair Return Standard, which consists of three tests:

1. Financial Integrity;
2. Capital Attraction; and
3. Comparable Investment.

Nothing about the current Formula provides any assurance that these tests will be met on an ongoing basis in the future, nor is the current Formula recognized in financial and economic theory as a method for estimating the cost of capital at any given point in time.¹ Instead, it is a method of adjusting the fair return that is determined at one point in time by indexing it to changes in government bond yields in the hope that a government bond yield will mimic actual changes in the fair return for common equity capital over time.² However, it is clear that no bond yield series will exactly mimic changes in the required cost of common equity over time because perceptions of risk

¹ Concentric Presentation to Stakeholder Conference, September 22, 2009, page 18.

² Transcript, September 22, 2009, pages 8-10; Concentric Comments on behalf of Enbridge Gas Distribution, September 8, 2009, page 57-61.

and the cost of risk change from time to time, and thus, the size of the required equity risk premium changes.³ Although the potential for mismatch has existed since the Formula's inception, this defect has become increasingly evident as the gap between common equity and the cost of risk free instruments has continued to widen, culminating in the past year when a "flight to quality" caused government bond yields to decline while the cost of other forms of capital, including corporate bonds and common equity, increased.⁴

Another problem with the current Formula is that the sensitivity of the risk premium has been overstated, thereby causing an excessive decline in the risk premium as government bond yields have declined to a level far below the forecasts that were available when the Formula was adopted.⁵ At 0.75, the adjustment coefficient in the Formula is mis-specified. Instead of adjusting the return on common equity by 75 percent of the change in the government bond yield index each year, it is likely that a coefficient of 0.50, applied to a properly rebased ROE, will more accurately track changes in the cost of common equity as bond yields change in the future.

As markets have evolved, there has been an increasing divergence between the Formula return and the return required to meet the Fair Return Standard. For example, in a relatively short period of time in the late 1990's, as the formulaic method was being introduced in Canada, the returns allowed by Canadian regulators went from being *greater* than those awarded in the United States, to being at least 100 basis points *less* than returns awarded to non-formula utilities. The gap between U.S. and Canadian returns has widened to approximately 150-200 basis points in recent years.⁶ Similarly, major greenfield projects in recent years have not gone forward with returns set at the formula level. The significance of this phenomenon was discussed at the consultation:

Dr. Gaske: "... The next point I have is investors have little interest in investments regulated by the formula. I think we have seen that quite a bit in recent years. Parties who have proposed major projects invariably proposed they do those projects under negotiated rates with rates of return that are established by something other than a formula, and typically the rates of return embedded in the negotiated rates are quite a bit higher than anything that the formula would yield.

Some note has been made of TransCanada having the ability to issue stock and bonds. I would only note that TransCanada is investing in projects that are not regulated by the formula, and, in fact, when it issued its stock and bond issues this past year, one of the major things that it said it needed the money for was its Keystone Project, which is about \$12 billion that it is investing primarily in the United States. It has purchased pipelines all over the United States. And they're not alone.

Lots of Canadian companies, particularly companies that we're aware of that are regulated by the formula, have started investing in projects that are not regulated by the formula, including plenty of projects in the United States."⁷

³ Concentric Comments on behalf of Enbridge Gas Distribution, September 8, 2009, page 58, quoting OEB 1997 Draft Guidelines.

⁴ Concentric Presentation to Stakeholder Conference, September 22, 2009, page 7; Concentric Comments on behalf of Enbridge Gas Distribution, September 8, 2009, pages 53-56.

⁵ Concentric Presentation to Stakeholder Conference, September 22, 2009, page 6; Concentric Comments on behalf of Enbridge Gas Distribution, September 8, 2009, pages 38-39.

⁶ Concentric Comments on behalf of Enbridge Gas Distribution, September 8, 2009, Figure 1, page 18; Concentric Presentation to Stakeholder Conference, September 22, 2009, page 5.

⁷ Transcript, September 22, 2009, pages 25-26.

This desire to invest elsewhere is driven to a large extent by the fact that the formula returns are inadequate:

Mr. Coyne: “I think it is true and that it is a natural evolution for Canada's utility holding companies to want to diversify. So I would submit that it is true that that is a part of the motivation to invest in the US and elsewhere.

But I think that at least in our discussions with them, they also explicitly address the issue of the regulated returns they're earning in Canada as being an impetus behind that desire to diversify.

So I think both factors are really true, that it is a desire to diversify, but I would say that it is prompted, in no small part, by what they perceive to be inadequate returns with the regulated holdings in Canada.”⁸

The significance of this phenomenon of higher returns with greenfield projects is that it indicates that the formula return is less than a competitive market level. When capital is not sunk and there is a competitive market for new pipelines, the required return for new projects has been considerably greater than the formula return.⁹

This divergence between returns required by the market and returns produced by the Formula is not a temporary “glitch” in the formula that will be self-correcting if the Board does nothing. Instead, it is evidence of a fundamental flaw in the assumption that the cost of common equity will change in lock-step with changes in government bond yields.¹⁰ At the very least, the failure of this assumption requires periodic review and re-calibration of any formula that the Board might use.¹¹ Concentric found that the required rate of return on common equity at this time is 10.3 percent for electric utilities at a 40 percent equity ratio and 11.0 percent for gas utilities at a 36 percent equity ratio. In contrast, the Formula currently indicates a required rate of return of 8.01 percent for 2009. The Formula obviously has not come close to tracking the equity costs that exist today.

The problems with the current Formula have real-world implications as the current Formula ROE and deemed capital structures place Ontario's utilities at a competitive disadvantage to their North American peers when it comes to attracting capital. When given a choice, investors are prioritizing investments elsewhere. For example, Canadian companies subject to the formula are actively seeking out alternative investments in other countries or industries, but foreign investors have not demonstrated a similar interest in Canadian utility investments.¹² If allowed to persist, inadequate returns are likely to have adverse effects on the cost and/or quality of service for consumers because an inadequate return can lead to sub-optimal investment over long periods of time.¹³

Experience with the current Formula indicates that a formula, tied solely to government bonds, is highly prone to error. Consequently, Concentric has proposed to modify the current Formula with a formula that, after re-calibrating the rate of return, would cause the return to change in the future

⁸ Transcript, September 22, 2009, page 99.

⁹ Transcript, September 22, 2009, pages 25-26, 101.

¹⁰ Concentric Presentation to Stakeholder Conference, September 22, 2009, page 18.

¹¹ Id.

¹² Concentric Presentation to Stakeholder Conference, September 22, 2009, page 17; Transcript, September 22, 2009, pages 26 and 72-74.

¹³ Transcript, September 22, 2009, pages 87-88.

according to an index that is made up of two cost-of-capital indicators that are each likely to be more accurate indicators of changes in the cost of common equity than the government bond yield. The proposed indexing mechanism would be equally weighted between (i) 50 percent of changes in A-rated Canadian utility bond yields, and (ii) changes in the average returns on common equity allowed by regulators in other jurisdictions in North America where a formula is not used.¹⁴ This formula would maintain the same regulatory expediency of the current formula, while providing inputs that are more representative of North American utilities' cost of capital.

Furthermore, the current approach to establishing a capital structure and allowed return on equity does not adequately address the relationship between capital structure and the cost of equity. By using the Formula to set a return on common equity, and then looking to bond analyses such as coverage ratios to set the deemed equity ratio, the current approach does not adequately reflect that the required return on common equity is a function of the equity ratio selected. Concentric addresses this problem by laying out a table of equity ratios and their associated required returns on common equity.¹⁵ The purpose of prescribing a table – instead of a single ROE and capital structure recommendation for each utility industry – is to provide the utilities with some flexibility to select the capital structure that best suits their needs under existing capital market conditions, similar to how firms operate in a competitive environment.

Although bond rating considerations are important for satisfying the “financial integrity” standard, bond rating analyses and discussions of the bank lending industry that were presented in the consultation did not explicitly address the “capital attraction” and “comparable return” standards. As shown in Concentric’s analyses and presentation, a rate of return on common equity that is barely adequate to satisfy bond interest coverage requirements generally will not be adequate to attract common equity capital or meet the Fair Return Standard.¹⁶ Consequently, because this consultation is intended to examine the adequacy of the current common equity Formula, the discussions about bond ratings and bank lending regulation have minor relevance for determining the ability of the current common equity Formula to meet the Fair Return Standard.

III. CONCENTRIC’S RECOMMENDED ADJUSTMENT TO THE ESTABLISHED METHODOLOGY

Several participants in this consultation have observed that the established cost of capital Formula in Ontario has resulted in lower returns for equity holders even though economic events have led to higher corporate risk and accordingly higher costs of capital.

Mr. Akman: “...And I would argue that things could get worse if regulators across Canada maintain the status quo. The reason is that the allowed ROEs are sitting at around 8-1/2, but if you use just the typical formula based on Canadian Government bond yields, the implied ROEs are going to be lower, closer to 8 percent.

¹⁴ Concentric Comments on behalf of Enbridge Gas Distribution, September 8, 2009, Appendix C.

¹⁵ Concentric Presentation to Stakeholder Conference, September 22, 2009, page 13.

¹⁶ Concentric Presentation to Stakeholder Conference, September 22, 2009, slide 8; Concentric Comments on behalf of Enbridge Gas Distribution, September 8, 2009, pages 28-29; Transcript, September 22, 2009, pages 12-13.

Now, that's not such a big deal, necessarily, on the face of it, except that the stocks aren't performing well in the first place, and I would argue that the market is expecting utility returns to go up, not down; not stay the same, but go up."¹⁷

Mr. Dafoe: "Well, again we have the problem that the formula was set with good intentions and was appropriate at the time but isn't effective in all time periods. The ROE is set by this formula, that's the 8.01 for the LDCs, and the corporate bond allowance of 7.62 was set with reference to more recent actual corporate bond market observations. And so this is the mismatch that you have. What is happening in the real world is reflected by the corporate bond yield, and what is reflected in the ROE does not reflect what is happening in the real world today."¹⁸

Dr. Vander Weide: "Yes. My last test, the sixth test, as you recall, was a test of whether the formula produced higher returns in periods of higher risk. I believe not only was the -- the risk, although it is gone down somewhat since, say, the third and fourth quarter of 2008, the risk is still considerably higher than it was in 2006 or 2007. And so I would have expected that the required return would increase. And instead, the formula produced a return that decreased during this period of heightened risk and averseness to risk."¹⁹

Mr. Dalton: "What we found in our analysis was that the formula is broken. I think that is the most simple way to put it. While the current market conditions exacerbate the formula's shortcomings, from our perspective it has provided inadequate returns for a considerable period of time. As such, it hasn't satisfied the fair return standard. Consequently, the formula's deficiencies will not be remedied when credit markets heal."²⁰

This divergence in returns has illuminated a fundamental flaw in the Formula. The government bond yield alone does not adequately predict utility cost of equity in all economic conditions. Accordingly, Concentric recommends a rebasing of the cost of capital in Ontario to one that meets all tests of the Fair Return Standard. Concentric has provided all the inputs for such a rebasing in Appendix F of its submission on behalf of Enbridge Gas Distribution, Inc. where a full cost of capital study has been conducted. The landmark decisions of *Federal Power Commission v. Hope Natural Gas Company* (1944), 320 U.S. 391 ("Hope") and *Bluefield Waterworks and Improvement Company v. Public Service Commission of West Virginia* (1923) confirm that the three requirements of a fair return focuses on the "end result" as the critical focus of the process of determining a fair return. The following statement in *Hope* is particularly noteworthy (p. 602):

" . . . Under the statutory standard of 'just and reasonable' it is the result reached not the method employed which is controlling . . ."

These same principles have been widely adopted in Canada. Using multiple methodologies and appropriate proxy groups are the primary means by which to develop a return that is indeed "fair". The product of a formula, based upon one single input with no external corroboration, is not sufficiently robust to determine whether all three tests of the Fair Return Standard have been met.

¹⁷ Transcript, September 21, p. 17

¹⁸ Transcript, September 21, p. 94

¹⁹ Transcript, September 21, p. 171

²⁰ Transcript, September 22, p. 106

Concentric has provided a full cost of capital study based upon carefully selected North American proxy groups with like risks to the Ontario utilities. These proxy groups were selected on the basis of comparable credit ratings and business profiles, i.e. primarily engaged in the business to which their ROE estimates would be ascribed. On this basis, Concentric selected a gas distribution²¹ and an electric distribution²² proxy group. In addition, Concentric conducted an extensive examination of the operating, financial and regulatory risks faced by each of the proxy group companies to assess whether any adjustment to the ROE estimates were warranted for differences in risk between the proxy groups and Ontario utilities. That review can be summarized as follows:²³

Gas Distribution Utilities	Electric Distribution Utilities
<ul style="list-style-type: none"> • Financial metrics are weaker across the board for Ontario utilities • No differentiating operating risks between Ontario utilities and proxy groups • Ontario gas utilities remain exposed to weather risk, but 10 of 15 proxy group operating companies are protected against both weather and declining use through straight fixed variable rate design or full decoupling. An additional 3 of 15 companies have equal protection to the Ontario utilities through conservation decoupling mechanisms. • Gas cost recovery mechanisms were essentially the same between the Ontario utilities and the proxy group operating companies. • Ontario utilities have a greater number of deferral accounts, however proxy group operating companies provide deferral account recovery where significant exposure exists. 9 of 15 proxy group operating companies provide protection for DSM, environmental cost recovery, and pipeline replacement costs. • Ontario utilities employ earnings sharing mechanisms, whereby 10 of 15 proxy group 	<ul style="list-style-type: none"> • Financial metrics are weaker across the board for Ontario utilities • No differentiating operating risks between Ontario utilities and proxy groups • Ontario electric utilities have limited volumetric protection through special proceeding, but have exposure to variability in weather. 7 of 16 proxy group operating companies have similar or better protection through either straight fixed variable rates (2 companies), full decoupling (2 companies), or conservation decoupling (3 companies). • Generally both proxy group companies and Ontario utilities have full recovery of fuel costs, though Ontario's clearing mechanism can be subject to delay. Of the 17 proxy group operating companies, 11 of 17 companies have no exposure to fuel risk, either due to competition (6 companies), straight customer pass through of fuel costs (2 companies), or automatic adjustment mechanisms (3 companies). The remaining 6 companies recover prudent fuel cost upon prudence determination. • Ontario utilities have a greater number of deferral accounts, however the level of protection between proxy group operating companies and Ontario's utilities provided through deferral and variance accounts is comparable. • 10 of 16 proxy group operating companies (for which data was available) employ some sort of

²¹ Concentric Comments on behalf of Enbridge Gas Distribution, September 8, 2009, page C-1

²² Concentric Comments on behalf of Enbridge Gas Distribution, September 8, 2009, page C-3

²³ The following table is a summarization of the entries detailed in Exhibit Concentric-04 to EGD's written submission.

Gas Distribution Utilities	Electric Distribution Utilities
<p>operating companies employ either an earnings sharing mechanism or incentive mechanism.</p> <ul style="list-style-type: none"> At least 5 of 15 proxy group operating companies operate in jurisdictions which allow CWIP in rate base, whereby Ontario gas utilities do not earn a return on CWIP. 	<p>earnings sharing or incentive mechanism, whereas the Ontario electric utilities have no earnings sharing mechanism, but generally do operate under some form of incentive regulation.</p> <ul style="list-style-type: none"> 14 of 16 proxy group operating companies (for which data was available) operate in jurisdictions that allow for CWIP in rate base, whereby Ontario electric utilities do not earn a return on CWIP.

Based upon this examination of operating risks, financial metrics, and regulatory mechanisms, Concentric concluded that there were no appreciable differences in risk between the proxy group operating companies and the Ontario utilities, stating that there was “no basis to conclude that an adjustment would be warranted to account for risk differences between the Ontario utilities and the proxy group, other than for the additional debt leverage in Ontario. Their risks are, on average, the same.”²⁴ Lastly, Concentric provided the results from a Canadian regulated utility proxy group as a corroborating data point.

To ensure that no single methodology inappropriately biased the Ontario utilities’ cost of capital estimates, Concentric estimated the cost of capital under a variety of methodologies: the DCF method, the CAPM method, and a multi-factor risk premium analysis. Although, Dr. Booth indicated that he employed a lower risk premium and beta estimate of 5 percent and 0.50, respectively; no participant in the consultative proceeding took exception to Concentric’s approach to estimating the ROE for Ontario’s utilities. The following table provides the results from Concentric’s various analyses:²⁵

	Gas Proxy	Electric Proxy	Canadian Proxy
<i>Equity Ratio</i>	44.47%	46.32%	37.67%
Benchmark Low (DCF/CAPM)	9.87%	9.41%	9.39%
Benchmark Midpoint (DCF/CAPM)	10.31%	9.93%	9.77%
Benchmark High (DCF/CAPM)	10.95%	10.56%	10.29%
Multifactor Risk Premium	10.29%	10.30%	

Because the debt ranges of the proxy companies were substantially different than those of the Ontario utilities, and since the required return on equity necessarily increases as financial leverage increases, it was necessary to adjust the results of the various ROE methodologies for leverage. Concentric did this by using the Hamada equation to calculate the unlevered benchmark ROE result and then relever the unlevered benchmark ROE result for the desired level of leverage. Thus, ROE curves were established based on the benchmark ROE results for Ontario’s gas and electric utilities. Concentric developed a sector specific range of returns and capital structures that are bounded on

²⁴ Concentric Comments on behalf of Enbridge Gas Distribution, September 8, 2009, page D-16

²⁵ Concentric Comments on behalf of Enbridge Gas Distribution, September 8, 2009, pages F-16 and F-17

the lower end by 2.5x interest coverage and on the upper end by the average capital structures of the respective proxy groups. Those results are reproduced below:

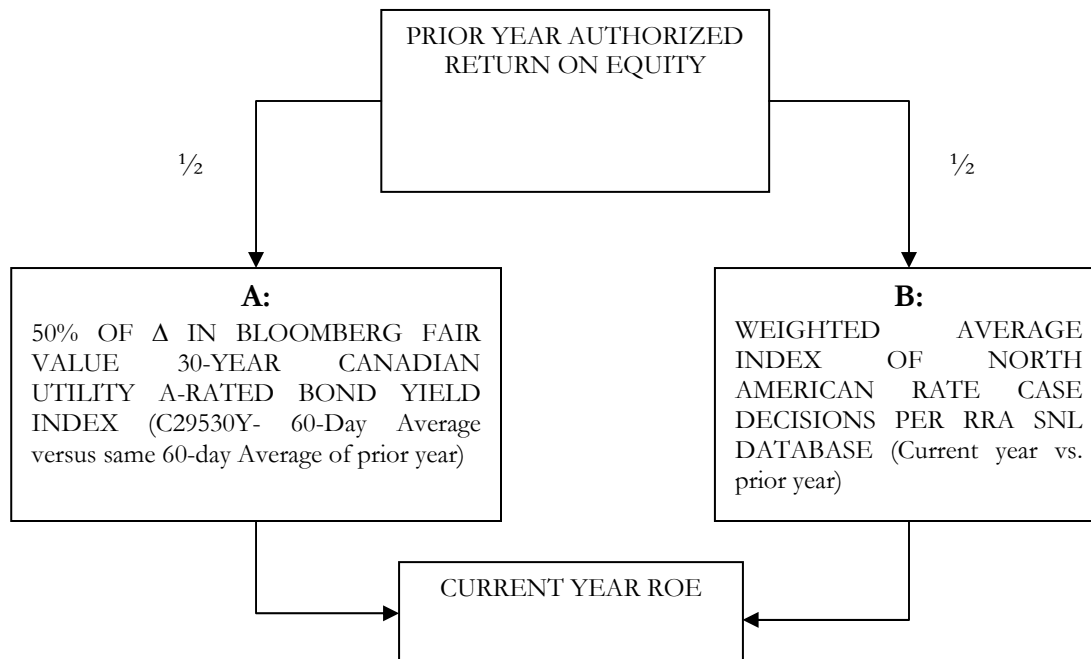
SUMMARY OF RECOMMENDED COMMON EQUITY RATIOS AND APPLICABLE ROES							
	COMMON EQUITY PERCENTAGE IN BOOK CAPITAL STRUCTURE						
	34%	36%	38%	40%	42%	44%	46%
Gas Distribution	11.3%	11.0%	10.7%	10.5%	10.2%	10.0%	9.8%
Electric Trans. and Dist.	11.2%	10.9%	10.6%	10.3%	10.1%	9.9%	9.7%

Concentric submits that the ROEs and capital structures detailed above are sufficient to meet all three tests of the Fair Return Standard and would be suitable estimates for rebasing ROE, while allowing flexibility to the utilities to adopt a capital structure that is optimal for their specific capital requirements.²⁶

Once ROEs are rebased to appropriate levels in line with ROE estimates derived from Concentric's ROE study (detailed above), a process must be established for adjusting ROE in the future. Acknowledging the OEBs desire for regulatory expediency, and the investment community's desire for transparency and a fair return, Concentric has considered several options for future adjustments to ROE. A study of the performance of several alternative formulas over time informed Concentric's ultimate recommendation for a lowered coefficient (from 0.75 to 0.50) and replacing the 30-year government bond yield in the formula with a 30-year Canadian A-rated utility bond yield index. However, even with these changes, there is risk that equity returns and bond yields may not move in accordance with their historical relationship. For this reason, Concentric has utilized a North American allowed return index, representing the year over year change in North American litigated returns. This index provides a directional measure of comparability with other North American utilities. In sum, these linkages to both utility equity and debt costs will provide better assurance that the comparable investment standard has been met, since it is directionally tied to North American litigated returns; and remedies the problem of tying utility equity returns to government bond yields that are diverging from actual corporate capital costs.²⁷ The robustness of this formula is supported by the high correlation between U.S. and Canadian equity markets, debt markets and government bond yields. The recommended formula is illustrated below:

²⁶ Concentric Comments on behalf of Enbridge Gas Distribution, September 8, 2009, page F-20

²⁷ Concentric Comments on behalf of Enbridge Gas Distribution, September 8, 2009, page 65



Acknowledging that one cannot be sure that any formulaic approach will continue to satisfy the Fair Return Standard over time, Concentric recommends a combination of annual monitoring, while remaining flexible to address problems with the formula as they arise and to make adjustments as the Board deems appropriate. Lastly, Concentric recommends periodic formal reviews of the formula in the context of prevailing capital market conditions every 3 to 5 years to ensure the results continue to satisfy the Fair Return Standard.

IV. RECONCILIATION WITH VIEWS OF OTHER PARTICIPANTS

Over the course of this consultative process, the Board has heard from a broad and informed group of experts. This group consisted of 5 current or former capital market participants (Mrs. Akman, Dafoe, Holloway, Carmichael and Ms. Zvarich) and 8 cost of capital, finance or economics experts (Dr. Vander Weide, Mr. Coyne, Dr. Gaske, Ms. Lieberman, Mr. Dalton, Ms. McShane, Dr. Booth, and Dr. Schwartz). Despite the varied backgrounds and perspectives of the experts, broad agreement emerged on most issues by most experts. The areas of divergence are actually quite narrow.

A. Areas of Consensus

The Canadian economy and capital markets are highly integrated with those of the U.S. - No panelist before the Board disputed the fact that the Canadian economy and capital markets are highly integrated with those of the U.S., and as a natural consequence, Canadian investors actively consider both international and domestic investment opportunities. Therefore, it cannot be disputed that Canadian investors would naturally compare returns for Canadian utilities with those available in the U.S.

Mr. Carmichael sums the consensus accurately when he offers: “In 2005, there were various changes made in the Tax Act which allowed institutional investors to more heavily invest in the United States and other foreign jurisdictions. And this generally reflects a move toward more integrated capital markets, where institutions in Canada are looking at a complete slate of Canadian, US, international companies when they're looking for investments, and these US companies present real opportunities for them.”²⁸

Mr. Akman: “...we have to acknowledge that in capital markets, the economy globally has changed quite a lot in the last several years, through globalization.”²⁹

Ms. Zvarich: “Firstly, the Canadian economy is very closely intertwined with the US economy...”³⁰

Dr. Booth: “Yes, the money markets have always been integrated. Basically, the Canadian banks can fund US dollars and convert them into Canadian dollars, or any other currency. So the money market has been integrated almost perfectly for at least the last 20 years.”³¹

B. Areas of Broad Agreement

The Current Formula tied exclusively to Government bonds is not working – All but one panelist who took a view on this issue reached the same conclusion as Concentric that the current Formula used in Ontario, and more broadly across Canada, is not properly tracking utility equity costs. A representative sample of views aligned on this topic include:

Mr. Akman: “What the equity markets are saying is that the current formula across Canada that bases allowed ROEs solely on changes in government bond yields is not working. And even a formula that bases the allowed returns on equity mostly on or principally on government bond yields is inappropriate.”³²

Mr. Holloway: “Now, taking a look at just utilities only, and utilities only we've defined as CU, Amera [sic], Enbridge, Fortis and TransCanada.”... “And as some of my colleagues mentioned before me, you can see that back in Q1 of '07, those entities were trading at 18 times their forward PE, and are now down at -- or 18.6, and are now down at 14.6. So they've contracted by four times, which is about 22 percent from Q1, which means that the cost of equity financing has risen significantly for those companies.”³³

Mr. Dafoe: “And I think that comes back to the appropriateness of RH-2-94 today, unchanged. It simply was too much to expect that setting that formula at a point in time would be good forever.”³⁴

²⁸ Transcript, September 21, 2009, page 108.

²⁹ Transcript, September 21, 2009, pages 83-84.

³⁰ Transcript, September 21, 2009, page 56, lines 18-19.

³¹ Transcript, October 6, 2009, page 41, lines 7-11.

³² Transcript, September 21, 2009, page 12.

³³ Transcript, September 21, 2009, page 46.

³⁴ Transcript September 21, 2009, page 88.

Mr. Carmichael: “Over time, the market has developed certain concerns regarding the formulaic approach. First of all, I think there are serious questions as to whether the formula is appropriate, whether it is a first -- or whether it provides a reasonable ROE.”³⁵

Mr. Dalton: “Utility equities have different and greater risks. So it is not reasonable to expect utility equities over all conditions to be forecasted using long Canada bonds. So the net result here is that the Board's formula is missing critical variables that influence the required return for utility equities.”³⁶

Ms. McShane: “Mostly it is because it has been tied to a single variable, the government bonds, as we've discussed earlier. In addition to that, the sensitivity factor of the coefficient on government bonds have been, with hindsight, too high, with the result that the ROEs that are currently produced by the formula are too low and, as the recent financial crisis has indicated, have in certain circumstances gone awry in the wrong direction.”³⁷

The results produced by the Current Formula do not meet the Fair Return Standard –

Perhaps the most important outcome of this consultative process is the Board's determination as to whether or not the current Formula produces results that meet the Fair Return Standard. As the Chair emphasized in his opening remarks: “And to be clear, this consultation is not about whether the return on equity is too high or too low, or whether or not it's correct or just right, if anybody can tell me it is. It's about whether it meets the Fair Return Standard.”³⁸

Concentric concludes based on its Ontario capital cost estimates and comparisons to like risk companies that the Ontario Formula's results do not meet the Fair Return Standard. Comments by panelists go to the heart of this issue and agree with Concentric's finding, and also address the consequences of a continued shortfall vis-a-vis the Standard. These comments address all three elements of the Fair Return Standard: capital attraction, financial integrity, and comparability.

Comparability:

Mr. Akman: “The comparable utility group in the US never seems to go below 10 percent, even in a very, very low bond yield environment like we've just seen.”³⁹

Dr. Vander Weide: “Again, the test is to compare these allowed returns and equity percentages to the allowed returns and the equity percentages used under the Formula in Ontario, and it's fairly evident that the allowed equity returns are approximately 200 basis points higher in the US than they are in Ontario. And the equity ratios are from 10 to 15 percent greater, on average, in the US than they are here.” And “So based on these six tests, then, I conclude that the fair return standard requires that Ontario utilities be given an opportunity to earn a return on their investment that is commensurate or approximately

³⁵ Transcript, September 21, 2009, page 106.

³⁶ Transcript, September 22, 2009, page 112, lines 15-20.

³⁷ Transcript, September 22, 2009, page 153, lines 19-26.

³⁸ Transcript, September 21, 2009, pages 6-7.

³⁹ Transcript, September 21, 2009, page 22, lines 3-5.

equal to returns on other investments of comparable risk. And from my studies, I find that the formula does not produce a fair return, according to my six tests.⁴⁰

Mr. Akman: “[T]here is this continued nagging problem of trying to attract international capital to these [Canadian utilities] stocks. And it’s not surprising that, because allowed returns in the United States for comparable companies, or I would argue comparable companies, are higher.”⁴¹

Capital Attraction and Financial Integrity:

Mr. Dafoe: “In the past two years, I’ve become quite concerned about the effect lower ROEs is having on credit quality.” “[W]hile rating agencies have made few explicit references to falling ROEs, their caution: Credit ratios are weak for the ratings, has been abundant and frequent. As a corporate bond analyst, I truly think that in the absence of some relief on the cost of capital, pressure on credit ratios coming at the same time as rising CAPEX requirements, and along with other complexities being introduced in the sector brings the risk of downgrades in the sector that is real. Additionally, if downgrades do occur and if the rating agencies agree the sector is riskier, the cost of new debt financing could be materially higher than it’s been for most of the past decade.”⁴²

Mr. Holloway: “And, as a result, the question is: what you’ve just seen, is it a blip or is it permanent? I can’t tell you, but I can tell you that if it continues at something that low of nature, at 39 basis points or something of that magnitude as what an equity investor is getting paid above debt, you’re not going to take that risk. It’s just not worth it. So that eventually will reflect in access to capital.”⁴³

Ms. Zvarich: “And, finally, what we also worry about is, in our opinion, inadequate levels of compensation for taking on risk, meaning low ROE levels. Why that matters is low ROEs will prevent companies from accessing capital markets or will make utilities’ access to capital markets less than optimal, and also create incentive for utilities to engage in high risk/high return activities and may jeopardize their credit ratings.”⁴⁴

Mr. Dalton: “The capital stock is starting to turn over. These are discretionary investments where it is particularly important to make sure that the ROE is satisfying this capital attraction standard.”⁴⁵

The results of multiple methodologies should be considered in setting the cost of capital –
Most participants agreed that no one method should, or could, be relied upon to determine the cost of capital.

⁴⁰ Transcript, September 21, 2009, pages 150 and 155.

⁴¹ Transcript, September 21, 2009, page 18.

⁴² Transcript, September 21, 2009, pages 30 and 34.

⁴³ Transcript, September 21, 2009, page 74, lines 4-11.

⁴⁴ Transcript, September 21, 2009, page 54.

⁴⁵ Transcript, September 22, 2009, page 107, lines 2-5.

Mr. Carmichael: “We all recognize that each one of these standards has -- or when I say "standards," I'm actually here referring to the actual tests in terms of the CAPM and DCF test and the comparable earnings method. We all recognize that each of these methodologies has strengths and weaknesses. But I think it's also important to recognize that no one single test or methodology is likely to provide, as I say, "the answer." I think that all of these methodologies should be considered.”⁴⁶

Dr. Vander Weide: “So based on these six tests, then, I conclude that the fair return standard requires that Ontario utilities be given an opportunity to earn a return on their investment that is commensurate or approximately equal to returns on other investments of comparable risk.”⁴⁷

Ms. McShane: “So the question is: Can the Board simultaneously set an initial ROE using multiple tests and still be able to implement a formula in such a fashion that it achieves the degree of regulatory efficiency that it is looking for? And the answer I believe to this is yes...”⁴⁸

The 0.75 factor is inaccurate – All but one panelist that offered a view on the mechanics of the Formula agreed with Concentric’s analysis which concludes that equity costs for Canada’s utilities do not move with bonds in a manner suggested by the 0.75 coefficient.

Mr. Carmichael: “[T]here are questions regarding how the formula is calibrated, and specifically I'm speaking to the issue of the 75 percent adjustment based on forecast long Canada bond yields maybe versus a potentially lower level of adjustment.” And “Firstly, I believe that 75 basis points adjustment is too high. Secondly, I believe that the comparison of last year's Government of Canada -- or the base year Government of Canada yield to the prospective year Government of Canada yield doesn't convey any information about capital market conditions that necessarily relate to a corporate entity.”⁴⁹

Dr. Vander Weide: “And so the evidence that the sensitivity is less than 50 basis points indicates that the 75 percent sensitivity used in the formula is probably high.”⁵⁰

Mr. Dalton: “This would be one thing that would explain the fact that the -- as I have found and as others have found, that the coefficient in the current equity risk premium formula is too high. And that the 0.75 should more appropriately be stated as 0.47 or 0.5. So if one has a formula which is overstating the relationship between long Canada bonds and utility equities, what happens when interest rates decline? I think what you are effectively doing is overstating the appropriate decline in the return on equities, and I think that this is one of the things that has caused the existing formula to produce a biased result and to cause it to understate the appropriate return on equity.”⁵¹

⁴⁶ Transcript, September 21, 2009, page 105.

⁴⁷ Transcript, September 21, 2009, page 155, lines 18-22.

⁴⁸ Transcript, September 22, 2009, page 155, lines 16-20.

⁴⁹ Transcript, September 21, 2009, pages 106, and 142-143.

⁵⁰ Transcript, September 21, 2009, page 152.

⁵¹ Transcript, September 22, 2009, page 113, lines 6-18.

Ms. McShane: "...a large part of the reason that the ROEs are lower than they should be today is because the formulas have overstated the sensitivity of the cost of equity to long-term Canada bond yields... there is a sensitivity of 45 to 55 percent, as opposed to the 0.75 sensitivity factor that the current formula uses."⁵²

U.S. utilities represent appropriate comparators - All panelists, with the possible exception of Dr. Booth, who offered their views on the topic agreed with Concentric's assessment which concluded that U.S. utilities serve as appropriate comparators to Ontario's utilities.

Mr. Carmichael: "And it raises, and I think reinforces, the notion that Canadian utilities must look at the financial performance of their US counterparts, and their US counterparts do reflect appropriate comparators, because they meet those US counterparts in the market for securities on a continuing basis."⁵³

Dr. Vander Weide: "I'm suggesting that the similarities are more -- there are more similarities than there are differences in the regulatory practices among the 50 states, and there are more similarities between the regulatory practices in the US and Canada than there are differences."⁵⁴

Credit ratings are not materially different between Canadian and U.S. utilities - When considered on an "apples to apples" basis, credit ratings for Canada's and Ontario's utilities are not materially different.

Mr. Carmichael: "Well, my experience is that credit ratings in the US are not materially different from credit ratings in Canada."⁵⁵

Dr. Vander Weide: "In fact, the average for the US utilities is more like BBB plus - that is, the electric utilities - and for the natural gas utilities it's closer to an A minus, which is approximately what the bond ratings are for Canadian utilities."⁵⁶

Ms. McShane: "So we don't really have a sense from this what the ratings of the gas distributors are in the US versus Canada... can tell you -- I mean, I can tell you that the typical rating of gas distributors is in the A category, which is similar to what we see here."⁵⁷

Mr. Coyne: "...the universe of gas utilities in the US have the same credit ratings as the universe of gas utilities in Canada. Where they differ is if you just look at the investor-owned universe of electric utilities in the US versus the investor-owned universe -- excuse me, versus the universe of all electric utilities in Canada. If you were to include the municipal and government-owned electric utilities in the US, they have credit ratings that are as high as AAA for entities such as Bonneville, for example, Lower Colorado River

⁵² Transcript, September 22, 2009, page 156-157.

⁵³ Transcript, September 21, 2009, pages 108-109.

⁵⁴ Transcript, September 21, 2009, page 177, lines 7-11.

⁵⁵ Transcript, September 21, 2009, page 116.

⁵⁶ Transcript, September 21, 2009, page 164, lines 8-12.

⁵⁷ Transcript, October 6, 2009, page 50

Authority. So if one were to compare then universe to universe, I think even there, they would be comparable.”⁵⁸

The appropriate cost of capital for Ontario’s gas and electric utilities is in the 9.7 – 11.3% range with equity ratios in the 34 - 46 percent range – Concentric conducted an independent and thorough cost of capital analysis for Ontario’s gas and electric utilities relying on multiple methodologies and determined that the appropriate cost of capital lies in these ranges. Equity costs should be adjusted for differences in financial leverage. Verification of the reasonableness of these results is supported by the specific work of Dr. Vander Weide and Ms. McShane who provided ROE estimates ranging from 10.03 to 10.37% in her initial comments to the Board⁵⁹, and directionally, by the comments of most panelists.

Dr. Vander Weide: “And I conclude that Ontario utilities should be allowed to earn ROEs in the range of approximately 10 to 11 percent on equity ratios in the range 40 to 50 percent. These allowed returns and equity ratios are not independent of each other, because the higher the equity ratio you have, normally, the allowed return. And so if you're at the high end of the range on one of these two, you would likely have to be at the lower end of the range on the other one.”⁶⁰

C. Areas of Divergence

While as summarized above there was broad agreement among most panelists on the key issues in this consultative process, there is not complete consensus. Dr. Booth in general supports the continued use of the Formula and finds its results “generous”.⁶¹ There are several aspects of Dr. Booth’s positions, however, that are in direct conflict with Concentric’s analysis, the informed views of Canadian capital market experts and the positions taken by the majority of participants in this process. In certain instances, he has taken positions seemingly inconsistent with his own writings.

The appropriate determination of comparability in satisfying the Fair Return Standard - a fundamental disagreement between the views expressed by other participants and Dr. Booth is the definition of comparability. At the heart of the matter, Dr. Booth expresses:

“My most important recommendation to the Board is that a fair ROE stems from the Canadian capital market.”... “There is no reason to believe that looking anywhere other than the Canadian capital market provides insight into these three iron laws. In my judgment, it is better to look at Canadian capital markets and Canadian UHCs and make adjustments, than look elsewhere, where we know from the three iron laws it is not easy to make comparisons.”⁶²

⁵⁸ Transcript, October 6, 2009, page 61, lines 4-16.

⁵⁹ EDA Comments to the Board, April 17, 2009, pages 21-23.

⁶⁰ Transcript, September 21, 2009, pages 155-156.

⁶¹ Comments of Dr. Booth, September 2009, page 4.

⁶² Comments of Dr. Booth, September 2009, pages 24-25.

Dr. Booth supports this position with a series of arguments ranging from asserted differences between the U.S. and Canadian banking systems⁶³, economic outlook⁶⁴, equity risk premiums⁶⁵, interest rates⁶⁶, exchange rates⁶⁷, utility regulation⁶⁸, and utility risk⁶⁹. Some of these arguments are seemingly at odds with Dr. Booth's recognition of the closely integrated U.S. and Canadian capital markets. For example, when questioned on this topic, he acknowledges:

- “Yes, the money markets have always been integrated. Basically, the Canadian banks can fund US dollars and convert them into Canadian dollars, or any other currency. So the money market has been integrated almost perfectly for at least the last 20 years.”⁷⁰
- “The US market is 50 percent of the world capital market. You can't ignore it. It is the elephant in the room.”⁷¹
- “I agree that there is more capital market integration. I agree the capital flows around the world a lot easier than it used to.”⁷²
- “There is absolutely no question that capital is moving around. There is absolutely no question that there is more competition for capital.”⁷³

While Dr. Booth indicates you can't ignore the U.S. market, he dismisses the comparability of U.S. utilities. But, he acknowledges he has not done a comparative analysis of U.S. vs. Canadian regulatory or business risk:

“In terms of the actual specifics of state regulation of utilities, I have not done a huge survey or work on that. What I have done is looked at the evidence that's been put forward by witnesses, when we have asked them to provide information on: How frequent are the rate reviews? What is the performance of allowed rates of return compared to actual rates of return?”⁷⁴

Rather, he relies on views expressed by others, or infers differences in business risk from snapshots of utility credit ratings prepared by others.⁷⁵

“This was a presentation that Peter Kind of Merrill Lynch Bank America gave to NARUK [sic]. I've got January -- I think it was actually February 2009. And I received copies of his slides, and one of the copies of the slides indicated this deterioration in credit quality. But I have no evidence of the firms that he looked at to produce those samples.”⁷⁶

⁶³ Dr. Booth Comments, Pages 12-13

⁶⁴ Dr. Booth Comments, page 10

⁶⁵ Transcript, October 6, 2009, page 11

⁶⁶ Dr. Booth Comments, page 22

⁶⁷ Dr. Booth Comments, page 22

⁶⁸ Dr. Booth Comments, page 23

⁶⁹ Dr. Booth Comments, page 24

⁷⁰ Transcript, October 6, 2009, page 41, lines 7-11.

⁷¹ Transcript, October 6, 2009, page 42, lines 9-11.

⁷² Transcript, October 6, 2009, page 43, lines 24-26.

⁷³ Transcript, October 6, 2009, page 44, lines 4-10.

⁷⁴ Transcript, October 6, 2009, page 30.

⁷⁵ Dr. Booth Comments page 24.

⁷⁶ Transcript, October 6, 2009, page 37, lines 20-26.

Concentric would respectfully submit that this is not a substitute for a careful examination of Ontario's gas and electric utilities and the operating, regulatory, and financial risks they face in contrast to a similarly situated set of U.S. utilities where these parameters can be appropriately compared. Concentric has conducted considerable research on this topic, and submitted a detailed analysis of these comparative risks in Appendix D of its Comments filed with the Board. In summarizing that analysis, we concluded:

“Our analysis reveals, that though there are differences between the mechanisms employed to address the many risks a regulated utility faces, the level of risk mitigation via rate mechanisms between the Ontario utilities and proxy group utilities are comparable, though the mechanisms themselves may be different. As the NEB has indicated in the excerpt above, if differences in the level of risk between the two groups were identified, it would be appropriate to account for them in the cost of capital analysis with an adjustment. We, however, have found no measurable differences between the proxy group average and the Ontario utilities that would warrant such an adjustment.”⁷⁷

Ms. McShane and Dr. Vander Weide in their comments to the Board offered a consistent view:

Ms. McShane: “U.S. utilities provide an alternative universe for the selection of comparable utilities, given the integration of the capital markets, the similarity of the operating environments and the similarity of the regulatory models.”⁷⁸

Dr. Vander Weide: “I conclude that the OEB should give significantly greater weight to the cost of equity results for the U.S. utilities groups than it has previously. The U.S. utilities are more involved in traditional utility operations than the companies included in the Canadian utilities indices. In addition, the sample of U.S. regulated utilities is significantly larger than the sample of Canadian regulated utilities, and the data required to estimate the cost of equity is more readily available for the U.S. utilities than for the Canadian utilities. Furthermore, Canadian investors have greater access to international stock market investments, including investments in the U.S., than they did prior to the elimination of the foreign property rule in 2005. For these reasons, the U.S. data provide important information on the cost of equity for Ontario utilities.”⁷⁹

On differences between interest rates and exchange rates, Concentric has also examined this issue. As summarized by Mr. Coyne at the Stakeholder Conference:

“In fact, if you look over the period 1997 through 2009, those 13 years, the average 10-year bond yield difference between the US and Canada was 11 basis points. So an 11 basis point differential between these 10-year bond yields over the past 13 years. This suggests capital markets that are moving very closely in tandem so the conclusions we reached for the Canadian bond markets are very much the same for utility bond markets and that is, as we saw, this deviation between government bond yields and of course the cost of corporate

⁷⁷ Concentric Comments on behalf of Enbridge, page 35.

⁷⁸ Ms. McShane Comments, September 2009, page 12.

⁷⁹ Dr. Vander Weide Comments, September, 2009, page 28.

debt which ultimately reflects what is going on with equity markets to even a greater degree.”⁸⁰

Dr Schwartz takes two views on this topic that would seem to be in conflict:

“Therefore, while the Concentric Report may be correct that Canadian and U.S. utilities have similar operating and business risks, the policy environments and the extent of “home bias” in capital markets suggest that U.S. utilities are not comparable to Canadian utilities for the purpose of the comparable investment standard.”

But then counters:

“If regulators infer the return on equity for a Canadian utility based only on a sample of similar regulated Canadian utilities, then the decision process becomes circular because the utilities in the sample are regulated in broadly similar ways and regulators use similar samples.”⁸¹

Concentric has studied this issue from the macro-economy down to the utility operating level, and submits to the Board that U.S. and Canadian utilities can be appropriately compared for purposes of determining what an informed equity investor would require for investment in regulated utilities.

Methods for determining whether the cost of capital meets the Fair Return Standard - The second major area of divergence between the experts in the consultative process is in terms of methodology for estimating the cost of equity. In reaching his finding that 7.75% is the appropriate cost of equity, Dr. Booth relies exclusively on the CAPM method based on his judgments regarding the key inputs. As expressed in his comments to the Board:

“I would therefore recommend that the Board base its fair ROE on a risk based opportunity cost model, with overwhelming weight placed on a CAPM estimate.”...“The CAPM estimated fair return satisfies all the requirements of a fair and reasonable ROE...”⁸²

There is consensus among the experts in the consultative process that reliance on multiple tests and indicators is recommended to determine the cost of equity. Below, the Board’s selected capital market panelists consider the implications of relying solely on the CAPM to derive the recommended return on equity:

Mr. Dafoe: “I think I'd say that I don't know of any investors that use simple formulas like CAPM in making individual investment decisions when it comes time for a new issue of a bond or even equities for that matter. Very often these formulaic models, which are sort of a theoretical distillation of what happens in the real world, as Matthew said, don't always agree with the real world.”⁸³

Mr. Holloway: “...I wouldn't chalk me down as that's the absolute correct method. There's a variety of methodologies.”⁸⁴

⁸⁰ Transcript, September 22, 2009, page 11.

⁸¹ Energy Probe Comments, September 2009, pages 9 and 11.

⁸² Dr. Booth Comments, September 2009, page 20.

⁸³ Transcript, September 21, 2009, page 79.

⁸⁴ Transcript, September 21, 2009, page 79.

Mr. Akman: “I think an important point too is that when you're mechanically applying a formula like the CAPM model, we have to acknowledge that it's based on history. The stats that we use in applying that are based on history. And we are in a very fast-changing global financial market right now, as evidenced by the speed with which things came unravelled last year and have bounced back so quickly this year. And so part of what I'm suggesting is, let's look at some of the indicators in the marketplace today and let's not just be looking in the rear-view mirror at statistics that may drive a certain formula return. So yes, it is valid but let's not close our minds to evidence today that's clearly pointing to, in my opinion, that the cost of capital is rising in a very practical measure, which is, you know, dividend yield relative to certain bond yield metrics or PE multiples or EBITDA multiples, however you would want to slice them, discounts equity issuance. There's a lot of arrows pointing to that conclusion, and I wouldn't want anyone to lose that in the context of getting mired in history.”⁸⁵

Dr. Booth's recommendation, based solely on his CAPM analysis, is subject to a greater potential for error; and the potential for error is magnified, with due respect, when the analyses are subject to the judgments of a single analyst. In this instance, virtually every one of Dr. Booth's CAPM inputs: the risk free rate, the market equity risk premium, and beta, are based on his judgments. Conversely, Concentric's CAPM and DCF inputs are from credible third party sources of capital market information which the Board can test and monitor.

The Regulatory Relevance of Market to Book Ratios - Dr. Schwartz asks the Board to consider the usefulness of market-to-book ratios for purposes of measuring whether the Fair Return Standard is being met.

“The Board may also wish to consider the conditions under which “market-to-book” ratios are useful. Where the utility has traded shares, this ratio measures the fairness of the regulatory environment, in the sense that a ratio below 1.0 indicates that investors believe that allowed earnings are too low to provide a return that maintains the value of their initial investment.”⁸⁶

Mr. Coyne explained, in response, why a market-to-book test has no practical application for regulators:

“It would be a very unusual event for a utility or, for that matter, any set of mature assets, to sell at a 1:1 for book-to-market ratio. That is because there is a very practical reason for that, and that is when you think about what book value is, either for a utility or for a set of -- a house or any other sort of set of real assets that deliver services, over time the value of the services they deliver is influenced by inflation, and, therefore, the market value of replacing those assets over time.

So if one were to try to replace a utility's assets, the pipe in the ground, the electric distribution infrastructure, they would have to take into account what it would cost to

⁸⁵ Transcript, September 21, 2009, page 82.

⁸⁶ Energy Probe Comments, September 2009, page 19.

replace those assets today, and it would be a very unlikely event that the book value would reflect the replacement cost of those assets.

A nominal indicator of the market value should at least be the replacement cost. Whether or not there is any franchise value above and beyond that is another question. But for those practical reasons, it would be very unusual for the market value of a set of utility assets to be equal to 1:1. It always has to be greater.

If you think about what book value is, it is the initial investment value less depreciation. And depreciation is just some very crude accounting device designed to suggest at what value that asset is diminishing over time.

It would be a very unlikely event that that depreciation measure would actually match what is going on in terms of the market's view of those assets.

So it would be a very awkward tool and crude tool, I would argue, for a regulator to try to attract -- to track the market in that regard.

If it were true that the market-to-book value reflects the investors' required return, would it also be true, then, that the TSX value today of 1.6:2 suggests that investors are over-earning their required return because of where the TSX trades? Would that same logic not follow?⁸⁷

V. CONCLUSIONS

Over the course of this consultative process, the OEB has heard from a diverse group of experts on the 19 questions posed by the Board on July 30th. The central themes that emerge from those experts are as follows:

- The Capital Markets panelists emphasized the continued integration of U.S. and Canadian capital markets, and the need for Ontario utilities to compete against other North American utilities to raise debt and equity capital. They further agreed that the Formula has not accurately tracked equity costs, and in general does not satisfy a test of comparable returns. Some expressed concerns for continued credit quality and the ability to attract incremental capital at reasonable rates. Not one Capital Markets panelist endorsed the continued use of the existing Formula.
- The Electric Distributors Association (EDA) represented by Kathleen McShane reaches conclusions on all major issues comparable to those of Concentric: reliance on the Formula tied strictly to government bonds has resulted on ROEs below those that would provide a fair return; multiple cost of equity approaches should be used; U.S. utilities provide reasonable proxy companies; both the initial ROE and adjustment mechanism should be reset; capital structure must be reflected in ROE; and formal reviews every five years should follow.

⁸⁷ Transcript, October 6, 2009, pages 134-135.

- Union Gas represented by Dr. James Vander Weide reached conclusions on all major issues that are in complete agreement with Concentric's: the OEB Formula is not producing a fair return at this time; it fails to provide returns commensurate with comparable risk investments; the relationship between long Canada and ROE is mis-specified and cannot be relied upon to accurately project required equity returns; U.S. utilities are appropriate comparators for cost of capital and the use of Canadian utilities is circular; results from several cost of capital methodologies should be considered; utility bonds are preferable to long Canadas for equity; direct market evidence on utilities cost of capital is required; and a simple formula cannot be accurate.
- Fortis Ontario represented by Donald Carmichael concludes that Ontario's utilities face more competition for raising capital; the OEB methodology should be re-examined for its reliance on government bonds along with the 0.75 adjustment factor; the produced result is not fair and may be inadequate to attract new equity capital into the Ontario electric sector.
- Great Lakes Power Transmission represented by John Dalton concludes that the current approach used by the Board is not appropriate; long-term Canadian bonds and corporate returns have diverged and any relationship that existed in 1997 no longer holds; Canada long bonds are distinctly different financial instruments than utility equities; it is inappropriate to forecast utility ROEs only considering long Canada bond rates; corporate bond rates are better predictors of utility ROE; if the ERP method is retained a coefficient of 0.45-0.50 would be a more accurate indicator of the relationship between bond yields and equity; Canadian utilities reliant on the formula are inappropriate comparators; and U.S. utilities represent appropriate comparators.
- Ontario Power Generation concludes that the current Formula and resulting ROEs do not meet the Fair Return Standard; the Board should consider the results from all available tests and multiple methods and comparison to non-Formula utilities in resetting ROEs; the relationship between corporate bonds and ROE should be incorporated into an annual adjustment formula; samples of U.S. utilities represent appropriate comparators; relying on Canadian utilities only is circular; the adjustment factor of 0.75 should be revisited; and the OEB should seek comments from stakeholders every 4-5 years.
- Dr. Booth, on behalf of the Consumers Council of Canada, the Vulnerable Energy Consumer's Coalition, the Industrial Gas Users Association, the Canadian Manufacturers Association, the London Property Management Association and the Building Managers and Owners Association in general supports the continued use of the Formula and finds its results "generous". There are several aspects of Dr. Booth's positions that are unsubstantiated by Concentric's analysis, the informed views of Canadian capital market experts and is in fundamental disagreement with the positions taken by the majority of participants in this process.

In conclusion, Concentric would urge the Board to act on the full body of information and analysis presented in this consultative process. Specifically, Concentric recommends that the Board rebase ROE with appropriate adjustments for capital structure, and adopt an index tied to both debt⁸⁸ and

⁸⁸ The portion of the formula tied to debt should reflect an appropriate sensitivity of 0.50 to the change in debt yields.

equity indicators specific to utilities. In doing so, the Board will restore confidence in the regulatory compact and ensure that Ontario's utilities will be able to compete for capital and satisfy the important public policy objectives of the Province.