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October 29, 2009
Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge Street
Suite 2700
Toronto, Ontario, M4P 1E4
Dear Ms. Walli:
Re: EB-2009-0084 - The Cost of Capital in Current Economic and Financial Market Conditions - Final Written Comments of the London Property Management Association and the Building Owners and Managers Association of the Greater Toronto Area

## INTRODUCTION

This letter is 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 have been provided to the Board and an electronic version has been file through the Board's web portal at www.errr.oeb.gov.on.ca.

These are the written comments of the London Property Management Association (LPMA) and the Building Owners and Managers Association of the Greater Toronto Area (BOMA) related to the further information that the Board has indicated it wishes to obtain.

The three key areas identified by the Board are:

1. The potential need to adjust the established cost of capital methodology, based on the ERP approach, to adapt to changes in financial market and economic conditions;
2. To determine the reasonableness of the results based on a formulaic approach for setting the cost of capital; and
3. To guide the Board's discretion to adjust those results, if appropriate.

LPMA \& BOMA submit that within each of these three key areas there are significant sub-issues that need to be dealt with. LPMA \& BOMA also submit that there is a need to determine if the economic and financial conditions that prompted this review are still relevant.

## CURRENT STATE OF THE FINANCIAL MARKETS

LPMA \& BOMA note that this consultative was initiated by the Board in reaction to the economic and financial market conditions that existed in late 2008 and early 2009. In particular, the Board noted in its letter of August 20, 2009 in response to Mr. Robert B. Warren that:
"The Board's consultation is prompted by the state of the financial markets. As indicated in the Board's June 18, 2009 letter, the Board is satisfied that further examination of its policy regarding the cost of capital is warranted to ensure than, on a going forward basis, changing economic and financial conditions are accommodated if required (emphasis added)."

In particular, in the March 16, 2009 letter initiating the current consultation, the Board noted that the spread between the return on equity and the long-term debt rate had declined to a spread of 39 basis points in 2009, from a spread of 247 basis points as of the comparable date in 2008. The Board also noted the deterioration in the economic and financial crisis. As a result, the Board wanted to consider whether these circumstances warranted the Board exercising its discretion to adjust any or all of the values produced by the application of its established formulaic methodology.

LPMA \& BOMA believe it is essential for the Board to consider the current state of the economic and financial markets. The financial markets have changed substantially since late 2008 and early 2009. They have changed substantially since the Board initiated this consultation. It is the submission of LPMA \& BOMA that for the most part the financial crisis has abated significantly and markets are rapidly returning to normal. The following tables illustrate this.

The forecasted yield on long-term Government of Canada bonds has increased significantly from the level used to determine the 2009 return on equity and the deemed long-term debt rate. The following table shows this forecast for 2008,2009 as well as the values that would be used based on September, 2009 data. The 2008 data is taken from the Board's March 7, 2008 letter that set the 2008 cost of capital parameters and the 2009 data is taken from the Board's February 24, 2009 letter that set the 2009 cost of capital parameters. The September, 2009 information is based on the September, 2009 Consensus Forecast and the actual September, 2009 average spread between 30 year and 10 year Government of Canada bond yields.

Table 1 - Long-Term Government of Canada Yield

|  | 2008 | 2009 | September |
| :--- | :---: | :---: | :---: |
| Consensus Forecast | $4.200 \%$ | $2.900 \%$ | $3.700 \%$ |
| Spread | $\underline{0.256 \%}$ | $\underline{0.814 \%}$ | $\underline{0.524 \%}$ |
| Forecasted Yield | $4.456 \%$ | $3.714 \%$ | $4.224 \%$ |

As the above table illustrates, the yield on long-term Government of Canada bonds has increased by more than 50 basis points from the level underlying the 2009 rates used in the return on equity and deemed long-term debt formulas. Moreover, the September forecast is less than 25 basis points below the yield used for the 2008 calculations.

Based on the Board's return on equity formula, the resulting return on equity based on the forecasted yield shown in Table 1 above is provided below.

Table 2 - Return on Equity

|  | 2008 | 2009 | September |
| :--- | :---: | :---: | :---: |
| Return on Equity | $8.57 \%$ | $8.01 \%$ | $8.39 \%$ |

As shown in the above table, the return on equity based on current financial markets in September, 2009 has risen by 38 basis points from that based on the January, 2009 figures. The September return on equity is only 18 basis points below the 2008 return on equity.

Unlike the increase in the forecasted long-term Government of Canada yield and the return on equity, both of which have increased from the levels used to set the 2009 rates to the current September, 2009 levels, the deemed long-term debt rate has fallen, and fallen significantly. The following table illustrates the calculation of this deemed longterm debt rate. Again, the 2008 and 2009 figures are based on the Board's letters that set the 2008 and 2009 cost of capital parameters. The September, 2009 figures are based on estimates taken from the graphs at www.pcbond.com. The DEX Long Term All Government Bond Index Yield and the DEX Long Term Corporate Bond Index Yield graphs are attached in Appendix A to these comments. As can be seen in these graphs, the September, 2009 corporate bond yield was less than $6.0 \%$ (or less), while the Government yield was approximately $4.4 \%$ (or more), for a maximum differential of 160 basis points.

Table 3 - Deemed Long-Term Debt Rate

|  | 2008 | 2009 | September |
| :--- | :---: | :---: | :---: |
| Long-Term GOC Yield | $4.456 \%$ | $3.714 \%$ | $4.224 \%$ |
| Corp. vs. GOC Differential | $\underline{1.644 \%}$ | $\underline{3.906 \%}$ | $\underline{1.600 \%}$ |
| Deemed Long-Term Rate | $6.10 \%$ | $7.62 \%$ | $5.82 \%$ |

As the above table clearly illustrates, the deemed long-term debt rate has fallen substantially since the January, 2009, despite an increase of more than 50 basis points in the underlying long-term Government of Canada bond yield. This decrease reflects a reduction of about 230 basis points in the corporate versus Government of Canada bond yield. In fact, this differential is now back at the level recorded in 2008.

Based on the information provided above in Tables $2 \& 3$, Table 4 shows the differential between the return on equity and the deemed long-term debt rate. As noted above, the decline in this differential from 247 basis points in 2008 to 39 in 2009 was one of the key drivers in the Board initiating this consultation. As Table 4 illustrates, the differential between the return on equity and the deemed long-term debt rate, both calculated using the methodologies approved by the Board, has returned to a level similar to that of 2008.

Table 4 - Return on Equity vs. Deemed Long-Term Debt Rate

|  | 2008 | 2009 | September |
| :--- | :---: | :---: | :---: |
| Return on Equity | $8.57 \%$ | $8.01 \%$ | $8.39 \%$ |
| Deemed Long-Term Rate | $\underline{6.10 \%}$ | $\underline{7.62 \%}$ | $\underline{5.82 \%}$ |
| Differential | $2.47 \%$ | $0.39 \%$ | $2.57 \%$ |

In summary, the financial markets have returned to levels that are very similar to the beginning of 2008 when the Board determined the cost of capital parameters for 2008 cost of service applications. The financial crisis has come; it has peaked; markets are now returning to more "normal" levels. This was confirmed by the Capital Markets Panel when Mr. Holloway confirmed that a 200 to 300 basis point spread between corporate bonds and utility ROE sounded right (Sept. 21, 2009 Transcript, page 95). The 2008 and current September, 2009 figures provided above in Table 4 lie within this range of reasonableness.

Further, as noted in Mr. Holloway's material "Recent Trends in the Canadian Capital Markets", Enbridge Inc. issued 30 year debt in August, 2009 at $5.75 \%$. At the same time, the Board's ROE formula would have provided a return on equity of $8.38 \%$. The resulting differential of 263 basis points is well within the range reasonableness. It should also be noted that Enbridge Inc. could be considered riskier than the regulated distribution company (Sept. 21, 2009 Transcript, pages 9596). The resulting utility spread would be even more than the 263 basis points. Further, in March of 2009, at the height of the run up in corporate bond yields, Hydro One issued 30 year bonds with an effective cost of $6.07 \%$ (EB-2009-0096). At the time the Board approved return on equity was $8.01 \%$, for a differential of 194 basis points. In other words, in the worst financial crisis in decades, the Board approved return on equity still resulted in a premium over the corporate bond yield at the lower end of the range of reasonableness. Finally, in an interrogatory response in EB-2009-0096 (Ex. H-3-29) it can be seen that Hydro One issued more 30 year debt in July at an effective cost of $5.53 \%, 285$ basis points below the return on equity that would have been in place at the time of $8.38 \%$.

LPMA \& BOMA respectfully submit that the Board should take the preceding into consideration when determining if any changes are needed to the existing methodologies and formulas used by the Board to determine the cost of capital for 2010. Financial markets have, for the most part, returned to normal and the Board formula worked well through an unprecedented market crisis.

As noted in the Board's June 18, 2009 letter to stakeholders, the Board stated that there was not a sufficient basis to change the 2009 cost of capital parameters used for 2009 rates, but was satisfied that further examination of its policy regarding the cost of capital was warranted to ensure that, on a going forward basis, changing economic and financial conditions were accommodated, if required (emphasis added).

While the Board may need some flexibility to deal with a future financial crisis, LPMA \& BOMA submit there is no need for the Board to make any substantial changes to the cost of capital parameters based on current financial markets. If the financial market conditions in January, 2010 when the Board sets the 2010 cost of capital parameters are similar to those that currently exist then there would be no reason for any change in the policy regarding the setting of the cost of capital parameters based on current economic and financial conditions.

LPMA \& BOMA now turn their comments to the three key areas identified by the Board.

KEY AREA 1 - THE POTENTIAL NEED TO ADJUST THE ESTABLISHED COST OF CAPITAL METHODOLOGY, BASED ON THE ERP APPROACH, TO ADAPT TO CHANGES IN FINANCIAL MARKET AND ECONOMIC CONDITIONS

LPMA \& BOMA have interpreted this area to be focused on the return on equity formula. Issues related to the determination of the deemed long-term debt rate, the deemed shortterm debt rate and the associated capital structure are covered by the second key area identified by the Board.

LPMA \& BOMA have identified a number of issues within this area of discussion and have provided comments on each of them below. Overall LPMA \& BOMA believe that there is no reason to adjust the established cost of capital methodology and that the current formula should remain as is. If the Board does make any changes to the formula and/or the resulting return on equity, they should be minor in magnitude.

## a) Equity Risk Premium Approach

LPMA \& BOMA submit that none of the alternatives to the current approach suggested by some parties to the consultation is better than the Board's current method. Further, none of the suggested methods has been tested in manner or way. In the absence of any compelling evidence, LPMA \& BOMA submit that the Board should not be making any fundamental changes to the current methodology. If the Board believes that fundamental changes to the existing methodology should be investigated, then LPMA \& BOMA recommend that the Board initiate a full cost of capital proceeding that would take place in the summer of 2010 with the results to be used for 2011 cost of service applications. As noted earlier in these comments, the current financial market conditions will provide cost of capital parameter estimates for 2010 that will be similar to those in 2008, both in terms of the return on equity and the deemed long-term debt rate.

LPMA \& BOMA support the comments provided by Dr. Booth in "The Ontario Energy Board's ROE Adjustment Mechanism: Questions to Consider and Answers" dated September, 2009 prepared for the stakeholder conference. In those comments, Dr. Booth concluded that at a $4.5 \%$ long-term Government of Canada bond yield, a fair return on equity is $7.75 \%$. This analysis was based on a market risk premium of $5.5 \%$ and a beta of 0.5 and included a $0.50 \%$ for floatation and transaction costs.

Dr. Booth has estimated that the market beta for regulated utilities in Canada range from 0.45 to 0.55 and provided a market risk premium for Canada that generally ranged from $5.0 \%$ to $6.0 \%$. Based on these ranges, the equity risk premium would range from $2.75 \%$ $(0.45 \times 5.0 \%+0.50 \%)$ to $3.80 \%(0.55 \times 6.0 \%+0.50 \%)$. At a long-term Government of Canada bond yield of $4.5 \%$, this would yield a return on equity ranging from $7.25 \%$ to 8.3. The current Board formula would provide a return on equity of $8.60 \%(9.35+0.75 \mathrm{x}$ [4.5-5.5]). As noted and discussed below, some parties are suggesting that the adjustment factor of $75 \%$ of the change in the long-term Government of Canada bond yield should have been set at $50 \%$. If the Board's current formula had used the lower adjustment factor, the resulting return on equity assuming a $4.5 \%$ long-term Government
of Canada bond yield would be $8.85 \%(9.35+0.50 \times[4.5-5.5])$, or 25 basis points higher than that calculated using the existing adjustment factor.

The above analysis illustrates that the current Board methodology would result in a return on equity of $8.60 \%$ which is the midpoint of the upper end of the range based on the comments of Dr. Booth ( $8.30 \%$ ) and the $8.85 \%$ produced by the application of the current formula with the lower adjustment factor. LPMA \& BOMA submit that this is a good reason to not make any changes. The results of the current approach are reasonable.

## b) Adjustment Factor

As noted above a number of parties have suggested that the adjustment factor of $75 \%$ of the change in the long-term Government of Canada bond yield should be reduced to $50 \%$ in the formula that calculates the return on equity.

The impact of this change would be to increase the return on equity at Government of Canada bond yields lower than $5.5 \%$ and decrease the return on equity when the bond yield is greater than $5.5 \%$ when compared to the results of the existing formula. As an example, at a long-term Government of Canada bond yield of $4.5 \%$, the return on equity would be 25 basis points higher using the lower adjustment factor (see above). Similarly, if the bond yield was $6.5 \%$, the return on equity would be 25 basis points lower using the lower adjustment factor that it would be using the existing adjustment factor.

LPMA \& BOMA submit that there is no tested evidence to support or reject the $75 \%$ adjustment factor, the $50 \%$ adjustment factor, or any other figure. As a result LPMA \& BOMA submit that the Board should retain the $75 \%$ adjustment factor, but use the Board's discretion to set a range of long-term Government of Canada bond yields over which this adjustment factor would be applied.

LPMA \& BOMA provide the following proposal related to the adjustment factor and what factor should be applied to the Board's return on equity formula. It is proposed that the formula continue to utilize the $75 \%$ adjustment factor when the forecast long-term

Government of Canada bond yield lies within a range of $+/-150$ basis points of the $5.50 \%$ used in the current formula.

This range is a narrower range than that proposed by Ms. McShane in the EB-2007-0905 Ontario Power Generation proceeding. In that proceeding Ms. McShane recommended that the formula should be reviewed if the forecast long Canada bond yields fell below $3.0 \%$ or exceeded $8.0 \%$. In particular, she stated that the specification of $3.0 \%$ as the bottom end of the range recognized that there had been no experience with long-term Canada yields near that level since the early 1950 's. Similarly, with respect to the upper end of the range, Ms. McShane indicated that if long Canada bond yields were to reach $8.0 \%$, the real cost of capital or inflation could be materially higher than that which is currently anticipated. In both circumstances Ms. McShane believed a review of the validity of the formula would be warranted. Ms. McShane's range is $+/-250$ basis points around the $5.5 \%$ figure used in the formula.

At $+/-150$ basis points, the difference in applying an adjustment factor of $75 \%$ or $50 \%$ is 37.5 basis points on the return on equity. LPMA \& BOMA believe this difference is within the margin of error for the methodology. At $+/-250$ basis points, however, the difference in applying an adjustment factor of $75 \%$ or $50 \%$ results in a difference of 62.5 basis points, which is a more substantial difference.

LPMA \& BOMA agree with Ms. McShane's proposal that outside of the $3.0 \%$ to $8.0 \%$ long Canada bond yield range, or the $+/-250$ basis point spread around $5.5 \%$, the Board should review the validity of the formula in a formal hearing process.

LPMA \& BOMA propose that the return on equity remain flat when the long Canada bond yield is in the range between $+/-150$ basis points and $+/-250$ basis points (i.e. if the long Canada bond yield is between $3.0 \%$ and $4.0 \%$ or between $7.0 \%$ and $8.0 \%$ ) and that the return on equity be set at $8.225 \%$ if the long Canada bond yield is in the $3.0 \%$ to $4.0 \%$ range and at $10.475 \%$ if the long Canada bond yield is in the $7.0 \%$ to $8.0 \%$ range. These return on equity figures are the values produced by the current formula at long Canada
bond yields of $4.0 \%$ and $7.0 \%$ (or $+/-150$ basis points), respectively. This approach is shown graphically in Figure 1.


The solid (black) line in Figure 1 represents the return on equity calculated using the current formula with long Canada bond yields ranging from $3 \%$ to $8 \%$. The dotted (blue) line shows the corresponding return on equity calculated using the formula with a $50 \%$ adjustment factor. The dashed (red) line represents the return on equity based on the LPMA \& BOMA proposal. The proposed methodology maintains the status quo over the long Canada bond yield range of $4.0 \%$ to $7.0 \%$, while bridging the gap between the results of using the $75 \%$ adjustment factor and the $50 \%$ adjust factors for bond yields between $3.0 \%$ and $4.0 \%$ and between $7.0 \%$ and $8.0 \%$. This approach effectively puts in a floor and a ceiling on the return on equity in the event that the long Canada bond yields approach the levels where the Board may need to initiate a full review of the formula.

## c) Risk Free Rate

The equity risk premium is to a risk free rate to arrive at an estimate of the required return on equity. The Board has always used the forecast of the long Canada bond yields as the best proxy for the risk free rate. LPMA \& BOMA support the continuation of this methodology.

Some parties have suggested that the return on equity should be based on a premium over the long corporate (or utility) bond yield. LPMA \& BOMA disagree.

Again, there is no tested evidence that the Board can rely on to make a fundamental shift in policy. As noted earlier, the current methodology yields a return of equity premium over long corporate bonds in the range of 200 to 300 basis points, the range of reasonableness.

In his Comments, Dr. Booth stated that there is no clear and obvious relationship between corporate bond yields and the corporate cost of equity (pages 28-31). Dr. Booth noted that liquidity is a major driving force behind the yields on low risk securities, indicating that normally liquidity differences cause about $30 \%$ of the spread difference. However, during the recent financial crisis, the bond market, and particularly the corporate bond market suffered from a huge bout of illiquidity that drove up the spread difference. There was no such problem with government bond markets as capital moved to these safe havens. The resulting flow of capital from corporate bonds pushed down government bond yields and pushed up corporate yields, doubling the effect on the spread difference. Now, as the markets return to normal, the spread difference is falling quickly as the yield on government bonds increases and the yield on corporates declines. It makes no sense to LPMA \& BOMA to use corporate bond yields as the basis for determining the cost of equity when the corporate yields are subject to bouts of illiquidity. Adding volatility to the return of equity calculation serves neither ratepayers nor shareholders.

Finally, LPMA \& BOMA agree with Dr. Booth that the long-term Government bond yield "is the only objective measure of a long run opportunity cost, or expected rate of return, that exists in the capital market".

## d) Business Risk

There has been no indication from the distributors, or the organizations that represent them, that participated in the consultation of any change in business risk. As a result, there is no justification for a change in the return on equity on this basis.

## e) Business Cycle

Some parties appear to believe that regulated distributors should earn a higher return on equity during recessions since the cost of capital, including equity, tends be higher during downturns than it is during upturns. LPMA \& BOMA do not believe this to be appropriate.

If regulators were to allow distributors a higher return on equity during recessions and other slow economic times, the result would be an increase in rates to ratepayers at a time when they are least capable of absorbing the increase in costs. Higher unemployment rates, increases in commercial vacancy rates and reductions in industrial output result in less income, whether it be personal or corporate. This is the exact wrong time to be increase regulated utility rates.

Similarly, it does not make a lot of sense to reduce regulated utility rates during periods of economic growth and vitality to reflect a lower cost of equity when capital is cheap. In his Comments, Dr. Booth quantified the Canadian utility risk premium based on the work of Professor Damodoran of New York University that estimated the overall market risk premium to be 2.02 times the "BBB" spread. The "BBB" spread, as shown on page 28 of Dr. Booth's Comments have reacted consistently to changes in economic conditions over the last dozen years. Based on a beta of 0.5 , Dr. Booth estimates the Canadian utility risk premium for period 1987 to 2009, as illustrated on page 29 of his Comments. Dr.

Booth estimates that the Canadian utility risk premium has ranged from 300 to 450 basis points during recessionary periods to barely 100 basis points in booms.

Regulators have historically looked at the return on equity over complete business cycles. There are four key benefits of this approach. The first benefit is that the return earned by distributors and their shareholders is more stable than most corporations. Holding companies that own regulated utilities can leverage this earnings stability into lower borrowing costs for their more cyclical and volatile business endeavors.

The second key benefit to the business cycle approach to return on equity is that is provides greater rate stability to ratepayers than would otherwise be the case. As noted above, in the absence of a business cycle approach to setting the return on equity, ratepayers would end up paying more in bad economic times and less in good economic times. The business cycle approach taken by regulators dampens intergenerational inequities that would otherwise exist.

The third key benefit of this business cycle approach accrues to both ratepayers and utility shareholders and relates to the cycle of regulatory filings. The Board currently has a four year cycle for the electricity distributors to rebase using a cost of service application in one year followed by three years of incentive regulation. The cost of service application includes a review of the cost of capital to reflect current financial market conditions. The large gas distributors are currently on a five year cycle. Given that the occurrence of recessions and economic booms are notoriously hard to predict, not to mention the problems trying to predict the length of a recession or a boom, this regulatory cycle provides additional complications. A utility may file a cost of service application in a recession, receive a high return on equity based on current conditions and then continues to earn a high return over the following three years during which an economic upswing or boom may occur. In this example, ratepayers end up paying high rates for an extended period of time. Similarly, a utility that files during a boom time, receives a relatively low return on equity based on current conditions and then continues to earn a low return over the extended recession that hits during the incentive regulation
period. In this instance, ratepayers end up paying low rates for an extended period of time. Only by applying a business cycle approach to the return on equity can the Board guard against one extreme or the other happening.

Finally, the Board itself benefits from the business cycle approach. If the Board were to accept a cyclical approach to the determination of the return on equity, it would have to determine every year where we were in the business cycle. If every utility filed a cost of service application every year this would not be an issue. If the Board got the position in the cycle wrong one year, it would be corrected, or at least modified, in the following year for all distributors and all ratepayers. With a four or five year incentive regulation timeframe in place, there would be extreme pressure on the Board to get it right each and every year. Failure to do so could have significant consequences to distributors and ratepayers alike for many years. As noted above, the occurrence and length of recessions and booms are difficult to predict. The Board could easily find itself in the unenviable position of having to deal with this issue every year. In summary, that is why the current regulatory approach of setting a return on equity based on the long term horizon associated with business cycles remains appropriate.

## f) Comparability to U.S. Returns

Probably the most controversial issue within this area is that of comparability with returns awarded to U.S. regulated utilities. The Board has repeatedly heard that Canadian utilities need to compete in international markets for capital and that they only way they can do this is if they receive the same allowed returns on equity as that awarded to comparable U.S. utilities. It would appear, however, that Canadian utilities are compete effectively in obtaining capital, whether that capital is sourced from international markets or domestic markets. We know this because despite the large infrastructure investments being made across Ontario, not one utility has brought an application to the Board requesting a high return on equity because it cannot obtain debt or equity financing at reasonable terms.

The Board has also heard that utility holding companies are becoming less and less likely to invest additional amounts in the regulated utilities within its portfolio when they can invest the money in other opportunities that have a higher return.

LPMA \& BOMA suggest that there should be a further question asked. If these utility holding companies are so concerned about the low returns on their regulated assets, why don't they simply sell part or all of those regulated assets and reinvest that money in the higher yielding activities that they are interested in?

LPMA \& BOMA submit that you cannot get something for nothing. The shareholders want an overall increase in the holding company return, but do not want to take on any additional risk. The holding companies also want to hold onto their stable regulated utilities because this allows them to obtain better credit ratings and access lower cost debt financing than they would otherwise be able to obtain for their higher risk enterprises.

The parties that support the proposition that the regulated returns for Canadian utilities should be the same as those for U.S. utilities base their argument on their being no difference between Canada and the United States. When this statement is made, it is not always clear if the proponents are talking about the economies or the financial markets, or specifically about regulated utilities.

## The Economies

The U.S. and Canadian economies are different. Growth in economic output has been substantially different across the two countries. The timing of growth has been different. Unemployment levels and inflation rates have been significantly different. The timing of recessions and booms has been different. Economists often state that Canada cannot get out of a recession without growth in U.S. demand. When is the last time you heard anyone say that the U.S. cannot get out of a recession without growth in Canadian demand? The U.S. and Canadian economies have been, are and will continue to be, different.

## Financial Markets

LPMA \& BOMA submit that while the financial markets in Canada and the United States are similar in some respects, they are sufficiently different in others as to negate the concept that allowed returns in the two countries should be the same. One need only look at the U.S. financial system over the past two years. Financial institutions in the U.S. have failed, been bailed out, sold, and taken over by the government. Financial institutions in Canada, while being under pressure, have not suffered the same fate.

If the financial markets and economies of Canada and the U.S. were the same or even very similar, one would expect that the yield on long term corporate bonds with the same rating would be the same. However, this does not appear to be the case. In the material provided during the consultative, there is a graph that shows the difference between credits spreads for Moody's Corporate A-rated as compared to Bloomberg Canadian Corporate A-rated bonds prepared by Concentric Energy Advisors. Before the financial crisis this difference ranged from approximately 50 basis points to -60 basis points. During the financial crisis, the difference has ranged from 150 basis points to nearly - 100 basis points. This graph is attached as Appendix B to these comments.

Dr. Booth presented the results of a survey by Professor Fernandez of finance professors around the world that asked what they used for the market risk premium. This survey was done at the height of the financial crisis.

The survey showed that average market risk premium for the U.S. was $6.3 \%$, compared to $5.4 \%$ for Canada. The median of the responses for the U.S. was $6.0 \%$, compared to $5.1 \%$ for Canada. In both cases, the Canadian market risk premium was found to be 90 basis points lower than in the U.S.

Dr. Booth also provided a table in his presentation to the consultative that showed the annual rate of return estimates for the period 1926 through 2008 for both the U.S. and Canada, along with the long U.S. treasury and long Canada yields. The excess returns for both countries were also calculated. These estimates were done three ways: a simple
average, a geometric mean, and a least squares estimate. The results showed that the excess return estimates over the long bond yields in the U.S. were higher than for Canada by 107 basis points (average), 74 basis points (geometric), and 137 basis points (least squares).

LPMA \& BOMA submit that the survey of finance professors clearly demonstrates that the market risk premium for Canada is lower than it is for the U.S. and is backed up by the historical data.

LPMA \& BOMA submit it is clear that the capital markets, both debt and equity, are different in Canada and the U.S.

## Regulated Utilities

The Concentric report implies that Canadian and U.S. utilities have the same operating and business risk; therefore they should get the same allowed return on equity. LPMA \& BOMA submit that there are numerous reasons why the allowed returns on equity should not be the same because there are significant differences between Canadian and U.S. utilities.

As indicated by Dr. Booth and the Sun Life Financial presentation, there are a number of differences between Canadian and U.S. utilities. Rate reviews are less frequent in the U.S. than in Canada. This increases the regulatory lag risk for U.S. utilities. U.S. utilities have lower credit ratings on average than do Canadian utilities even though they also have higher allowed equipment components in their capital structures.

As Dr. Booth indicates in his Comments, a quick look at the newspaper shows that the prime borrowing rate in Canada is $2.25 \%$, while the US prime is $3.25 \%$. Government bond yields in Canada range from $1.46 \%$ for a 2 year term to $3.97 \%$ for a 30 year term. Government bond yields in the U.S. range from $0.96 \%$ for a 2 year term to $4.20 \%$ for a 30 year term (all data as of October 19, 2009). Canadian bonds, therefore, have a yield that is 50 basis points higher for a 2 year term bond, while the Canadian yield is 23 basis
points lower for a 30 year term. These differences highlight the difference between Canada and the U.S. with respect to low risk investments.

Ontario utilities have a plethora of deferral and variance accounts with which to mitigate risk. These accounts include the pass through of volatile electricity and natural gas commodity prices. They also include a capital module for incremental capital requirements for electricity distributors while under incentive regulation. In their presentation to the Board as part of the Third Generation IRM consultation (EB-20070673), Pacific Economics Group ("PEG") indicated that explicit and additional adjustments for capital expenditures were rare in price indexing plans. Ontario utilities have the right to file an application and cost of service evidence any time they feel they may need to rebase to reflect higher costs, lower revenues, or anything else that may be impeding their ability to earn their allowed rate of return. The same cannot be said of all U.S. utilities.

Appendix C attached to these comments contains another graph provided by Concentric Energy Advisors. This graph shows, among others, the Bloomberg Canadian Utility Index yield. This graph shows that the yield on Canadian utility bonds peaked at $7 \%$ during the recent financial crisis. The graph also shows that the Canadian utility bond yield averaged about $5.2 \%$ in 2006 and 2007 , and about $5.5 \%$ before the run up in rates in 2008. Moody's A utility yields have been considerably higher over this period. The U.S. utility bond yield peaked at more than $7.6 \%$, averaged about $6.1 \%$ in 2006 and 2007 and averaged $6.3 \%$ before the run up in rates took place in 2008 . This means that over the number of years, long Canadian utility bonds have yielded somewhere between 80 and 90 basis points less than U.S. utility bonds.

The obvious question is why should the allowed return on equity be the same for utilities in Canada and the U.S. when the actual long utility bond yields are significantly different?

Finally, as discussed earlier, the capital markets differ between Canada and the U.S., with different corporate bond yields, government bond yields and market risk premiums. Given this difference it is not surprising that there is a difference in the allowed return on equity for the utilities in the U.S. as compared to Canada. In fact, it would be surprising if there was no difference!

## g) Floatation and Transaction Costs

The current ERP approach includes an allowance of 50 basis points in the return on equity for floatation and transaction costs. LPMA \& BOMA submit that if the Board makes any adjustments to the return on equity, it should also consider reducing this allowance given that most regulated utilities in Ontario do not incur costs to issue new equity on a frequent basis.

## h) Recommendations from Other Parties

LPMA \& BOMA have reviewed the summary of stakeholder options provided in Attachment B to the Board's July 30, 2009 letter (identified as Appendix A - Summary of Stakeholder Options in Response to the Board's March 16, 2009 letter). A number of parties recommended adding components to the current formula, or simply adding a minimum of 200 basis points to the return on equity to bridge the perceived decline in the spread between the allowed return on equity and the deemed long-term debt rate.

LPMA \& BOMA submit that the decline in the spread between the allowed return on equity and the deemed long-term debt has been inflated as the result of the use of corporate bond yields rather than utility bond yields. When bond yields are used in place of the corporate yields, the decline in the spread in 2009 is much less. This issue is discussed in more detail later in these comments (see Determination of Deemed LongTerm Rate).

In any event, LPMA \& BOMA submit that the financial markets have already returned to more historical norms. Corporate and utility bond yields have fallen significantly since
the beginning of 2009 while long Canada bond yields have risen. These changes are all shown in the graph in Appendix C to these comments.

## KEY AREA 2 - TO DETERMINE THE REASONABLENESS OF THE RESULTS BASED ON A FORMULAIC APPROACH FOR SETTING THE COST OF CAPITAL

LPMA \& BOMA have interpreted this area to be focused on the components of the cost of capital excluding the return on equity. These issues include the deemed capital structure, the determination of the deemed short-term debt rate, the determination of the deemed long-term debt rate and the application of the deemed long-term debt rate. LPMA \& BOMA provide comments and recommendations on each of these issues below.

## a) Deemed Capital Structure Changes

In the Report of the Board on Cost of Capital and $2^{\text {nd }}$ Generation Incentive Regulation for Ontario's Electricity Distributors dated December 20, 2006, ("the 2006 Report") the Board deemed a single capital structure for all electricity distributors for rate-making purposes. The Board determined that a split of $60 \%$ debt and $40 \%$ equity was appropriate for all distributors. LPMA \& BOMA submit that this split is still appropriate and should not be changed.

The Board noted that the debt component was comprised of short-term and long-term debt and noted that in the gas sector "unfunded short-term debt" was calculated to balance total financing with rate base. The Board determined that the short-term debt amount was to be fixed at $4 \%$ of rate base, with long-term debt comprising the remaining 56\%.

LPMA \& BOMA submit that the short-term debt component of rate base should be more aligned with the percentage of short-term assets included in rate base. As LPMA \& BOMA will show, there is a significant disconnect between short-term debt financing and the short-term, or working capital requirement, of rate base for most distributors.

The Board has a long history of determining the capital structure of the regulated natural gas distributors in Ontario (Enbridge Gas Distribution (EGD), Union Gas (Union) and Natural Resource Gas Limited (NRG)).

The Board noted in the 2006 Report (page 9) that the use of short-term debt:
"has been included in rate setting for natural gas distributors. In the gas sector, an amount referred to as "unfunded short-term debt" is calculated o balance total financing with rate base."

The capital structure used by the Board for each of the three gas distributors reflects a deemed equity component and actual/forecasted long-term debt with the remaining amount needed to balance to rate base being the "unfunded short-term debt". BOMA \& LPMA note that the short-term debt includes both funded and unfunded short-term debt.

LPMA \& BOMA believe it is useful and insightful to look at the components of rate base and the capital structure for each of EGD, Union and NRG. The last cost of service hearings for all three of these distributors was based on 2007 test year filings (EB-20060034 for EGD, EB-2005-0520 for Union, EB-2005-0544 for NRG).

The allowance for working capital for gas distributors is similar to that used for the electricity distributors with two key differences. Gas distributors have a significant need for working capital associated with gas in storage and gas distributors are required to reduce their working capital allowance by the amount of customer security deposits held. Adjusting for these two differences, the working capital allowance for EGD represented $0.9 \%$ of its total approved rate base. The corresponding figures for Union and NRG were $1.9 \%$ and $0.9 \%$, respectively.

A review of the Board approved capital structure for the three gas distributors shows that the short-term debt component was similar to the magnitude of the working capital allowance share of rate base. In particular, the EGD short-term debt component of the capital structure was $1.68 \%$ while Union had a (4.48)\% component of short-term debt and NRG had (1.10)\%. The negative short-term debt components of the capital structure for
both Union and NRG reflected the "lumpiness" of additional long-term debt that was required for test year and future growth.

The key relationship that the Board has approved for the gas distributors is that the amount of short-term debt in the capital structure is similar in percentage terms to the magnitude to the working capital requirement component of rate base.

In the 2006 Report the Board stated (page 10):
"As a general principle for ratemaking purposes, the Board believes that the term of the debt should be assumed to be similar to the life of the assets that are to be acquired with that debt. This suggests that, in theory, for an industry with long-lived assets, the majority of debt should be long-term. However, in reality, some shortterm debt is a suitable tool to help meet fluctuations in working capital levels."

LPMA \& BOMA strongly support this matching principle between the life of the asset or component of rate base that is being financed with the length of the financing acquired. Ratepayers should not be paying long-term debt rates to finance short-term assets. Similarly, distributors should not be expected to finance long-term assets with short-term debt.

However, LPMA \& BOMA note the apparent inconsistency in the last sentence of the above quote from the 2006 Report. While the Board believed that the term of the debt should be assumed to be similar to the life of the assets, it went to say that some shortterm debt is a suitable tool to help meet fluctuations in working capital levels (emphasis added). LPMA \& BOMA take issue with the application of short-term debt to only the "fluctuations" in the working capital requirement.

The working capital requirement component of rate base is similar in concept to current assets component of a distributors' balance sheet. LPMA \& BOMA submit that these current assets should be financed by current liabilities. In other words, the working capital requirement, and not just fluctuations in the requirement, should be financed by short-term debt. This short-term debt is, in fact, being used to finance and facilitate cash flow.

The question then becomes what is the level of the working capital allowance component of rate base for the electricity distributors and is it similar to that of the gas distributors, or close the deemed 4\% short-term debt financing level set by the Board in the 2006 Report.

As part of the Cost of Capital and $2^{\text {nd }}$ Generation IRM consultation in 2006, Staff presented an option deeming short-term debt at $8 \%$ of rate base. This short-term debt would be used to finance working capital. The $8 \%$ figure was based on Staff's review of Hydro One Distribution's lead-lag study filed in its 2006 EDR rate case (EB-2005-0020/EB-2005-0378) which showed its working capital requirement was approximately $8 \%$ of its total rate base. LPMA \& BOMA note that based on its current rate application (EB-2009-0096) the working capital requirement is forecast to be approximately $6 \%$ of the forecasted rate base for Hydro One Distribution. As a result, the current deemed $4 \%$ short-term debt component of rate base is within reason for Hydro One Distribution. However, the same cannot be said of most of the other electricity distributors in Ontario.

LPMA \& BOMA have reviewed the allowance for working capital component of rate base for the majority of the distributors that rebased for 2009. As shown in Table 5, which is derived from the Board Decisions for the 2009 cost of service applications, the allowance for working capital is significantly more than $4 \%$ of rate base. In fact, the lowest percentage of rate base for the working capital allowance is $10.9 \%$ or more than 2.5 times the $4 \%$ short-term debt component of the capital structure. At the other extreme, the largest component of rate base for the working capital allowance is more than $28 \%$, or more than 7 times the short-term debt component of the capital structure.

On average, the 15 distributors listed have a working capital allowance component of rate base that is more than $20 \%$. This is a significant difference not only from the gas distributors, but it is also significantly different than the $8 \%$ figure derived from the Hydro One Distribution lead lag study.

Table 5 - Working Capital Allowance \& Long-Term Debt as Components of Rate Base

| File Number | Name of LDC | Total <br> Rate Base | Actual LongTerm Debt | Allowance for Working Capital | Actual LongTerm Debt | Allowance for Working Capital | Debt Plus Working Capital |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | (\$) | (\$) | (\$) | (\% of Rate Base)) | (\% of Rate Base)) | (\% of Rate Base)) |
|  |  | (a) | (b) | (c) | (d) $=$ (b) $/(\mathrm{a})$ | (e) $=$ (c) $/$ (a) | (f) $=(\mathrm{d})+(\mathrm{e})$ |
| EB-2008-0221 | Bluewater Power Distribution Corporation | 47,830,944 | 16,729,636 | 9,931,607 | 35.0\% | 20.8\% | 55.7\% |
| EB-2008-0225 | Centre Wellington Hydro | 9,039,502 | 5,046,753 | 2,118,338 | 55.8\% | 23.4\% | 79.3\% |
| EB-2008-0226 | COLLUS Power Corp. | 16,289,243 | 2,810,170 | 4,575,993 | 17.3\% | 28.1\% | 45.3\% |
| EB-2008-0227 | EnWin Utilities Ltd. | 199,803,077 | 53,255,973 | 28,174,420 | 26.7\% | 14.1\% | 40.8\% |
| EB-2008-0233 | Innisfil Hydro Distribution Systems Limited | 22,869,989 | 9,008,894 | 3,433,548 | 39.4\% | 15.0\% | 54.4\% |
| EB-2008-0234 | Lakeland Power Distribution Ltd. | 15,951,283 | 3,487,500 | 3,373,403 | 21.9\% | 21.1\% | 43.0\% |
| EB-2008-0235 | London Hydro Inc. | 225,325,979 | 70,000,000 | 44,416,243 | 31.1\% | 19.7\% | 50.8\% |
| EB-2008-0236 | Midland Power Utility Corporation | 12,211,648 | 3,122,519 | 2,977,065 | 25.6\% | 24.4\% | 49.9\% |
| EB-2008-0237 | Niagara-on-the-Lake Hydro Inc. | 21,857,011 | 10,358,946 | 2,377,354 | 47.4\% | 10.9\% | 58.3\% |
| EB-2008-0244 | PowerStream | 526,814,170 | 337,502,487 | 69,727,507 | 64.1\% | 13.2\% | 77.3\% |
| EB-2008-0245 | Thunder Bay Hydro Electricity Distribution | 75,533,273 | 34,643,642 | 13,480,846 | 45.9\% | 17.8\% | 63.7\% |
| EB-2008-0246 | Tillsonburg Hydro Inc. | 8,686,283 | 0 | 2,443,661 | 0.0\% | 28.1\% | 28.1\% |
| EB-2008-0247 | Welland Hydro-Electric System Corp. | 26,931,529 | 13,499,453 | 6,087,875 | 50.1\% | 22.6\% | 72.7\% |
| EB-2008-0248 | West Coast Huron Energy | 5,107,346 | 974,454 | 1,225,478 | 19.1\% | 24.0\% | 43.1\% |
| EB-2008-0250 | Westario Power Inc. | 33,968,175 | 13,785,962 | 6,100,922 | 40.6\% | 18.0\% | 58.5\% |
| Average |  |  |  |  | 34.6\% | 20.1\% | 54.7\% |

Based on the information contained in Table 5 related to the working capital allowance component of rate base for electricity distributors, LPMA \& BOMA submit that the Board should revise its policy related the deemed amount of short-term debt in the capital structure to more appropriately match the short-term nature of the working capital requirement component of rate base.

Specifically, LPMA \& BOMA recommend that the Board set the deemed short-term debt component of the capital structure equal to the working capital allowance share of rate base for each distributor. This would ensure that short-term financing requirements are met through the use of short-term financing. LPMA \& BOMA do not believe that one figure can, or should, be used for all distributors for short-term debt. As Table 5 shows, there is a wide variation in the working capital allowance component of rate base across the 15 distributors analyzed. There may be even more variability among the remaining 60 plus distributors.

LPMA \& BOMA also submit that by using a deemed short-term debt component that is significantly below that which would come from the matching principle, the Board has effectively allowed utilities to build in automatic over earnings into the revenue requirement through the use of deemed long-term debt. This deemed long-term debt has effectively replaced the short-term debt that should be included in the deemed capital structure. This can also be seen in Table 5. The average percentage of rate base for actual long-term debt is less than $35 \%$, significantly below the deemed $56 \%$ level. With the removal of PowerStream (64.1\%) and Centre Wellington Hydro (55.8\%), both of which are at or above the deemed level, the average falls to $30.7 \%$.

In the 2006 Board Report, the Board provided a number of reasons for setting the deemed short-term debt component at $4 \%$ of rate base. LPMA \& BOMA submit that these reasons are no longer valid.

First, in the 2006 Report, the Board stated (page 10):
"Rates on short-term debt can be more volatile than rates on long-term debt and therefore the Board believes it is in the interests of distributors and ratepayers for the amount of short-term debt to be set at a deemed level."

BOMA \& LPMA accept this statement, but only if the deemed level is close to a level of short-term debt that coincides with the general principle for ratemaking purposes that the term of the debt should match the life of the assets that are to be financed by the debt. The allowance for working capital is not a long term asset, it is a need for short term capital to manage cash flow. As such, the deemed level should be set at or near the level of the working capital allowance component of rate base. Unlike when the Board set the deemed level at $4 \%$ of rate base, the Board is now aware that the working capital requirement averages more than 5 times this at 20\% (Table 5) and that it varies significantly from one distributor to another.

Further, BOMA \& LPMA do not accept the statement that it is in the interest of ratepayers to have a deemed short-term debt component of rate base that is obviously too low. In fact, BOMA \& LPMA submit that the opposite is true. Ratepayers are actually paying more than they should because of the low deemed short-term debt component of $4 \%$. This is because distributors are allowed to increase the revenue requirement for deemed long-term debt. LPMA \& BOMA provide more information on this issue in part (b) 'Impact of Deemed Long-Term Debt' below.

Second, the 2006 Report, the Board stated (page 11):
"While a higher component of short-term debt would, all other things being equal, lower the cost of capital, it may be seen as financially constraining for distributors. Based on comments to this effect made by distributors, the Board believes that a smaller short-term debt component of rate base is appropriate."

Based on the information provided in Table 5, LPMA \& BOMA submit that there does not appear to be any financial constraints on distributors. If there were constraints on financing, it would be expected that the amount of long-term debt would be higher than it is. Distributors have had more than enough time to move towards the $56 \%$ deemed longterm debt ratio; the majority have not.

In summary, LPMA \& BOMA submit that the current deemed short-term debt component of the deemed capital structure is too low and should be more in line with the working capital allowance component of rate base, as it is for gas distributors. The shortterm debt component should also be allowed to vary by distributor to reflect the unique circumstances of each distributor.

## b) Impact of Deemed Long-Term Debt

As noted above, distributors are allowed to increase the revenue requirement for deemed, or notional, long-term debt. This deemed long-term debt is the difference between the deemed long-term debt ( $56 \%$ of rate base) and the actual amount of long-term debt held by the distributor. As noted in Table 5, the average level of actual long-term debt used by the 2009 cost of service filers was less than $35 \%$. This means that the amount of deemed long-term debt for these distributors is more than $20 \%$ of rate base!

Utilities are allowed to recover an amount equal to the weighted average cost of the actual embedded debt to the amount of the notional or deemed long-term debt. The actual cost to utilities of this deemed or notional long-term debt is $\$ 0$ since the debt does not actually exist. This deemed or notional long-term debt can also be considered unfunded debt. LPMA \& BOMA submit that this unfunded debt should be treated the same way that it is treated for the gas distributors. In other words, "unfunded short-term debt" should be calculated as the difference between rate base, less the deemed equity component, less the actual amount of long-term debt forecast to be in place for the test year.

Table 6 shows the impact of the current policy with respect to the inclusion of deemed long-term debt in the capital structure for all the distributors included in Table 5. Table 6 calculates the impact amount of excess interest that is included in the revenue requirement as a result of including the unfunded debt at the long-term debt rate instead of the short-term debt rate. The table also provides an estimate of the impact on the allowed return on deemed equity.

Table 6 - Calculation of Excess Interest Cost and After Tax Return on Deemed Equity

(1) Assumes marginal tax rate of $33 \%$
(2) Centre Wellington Hydro has a deemed long-term debt ratio of $52.7 \%$ for 2009

Excluding PowerStream (no excess deemed long-term debt), Thunder Bay (low rate on long-term debt) and Centre Wellington (lower deemed long-term debt ratio), the impact of allowing the recovery of long-term interest costs from ratepayers is staggering. Ratepayers are paying more than $\$ 7.8$ million in 2009 rates to these 12 distributors alone. And they will be paying this $\$ 7.8$ million for 2010, 2011 and 2012 as well, for a total cost to ratepayers of more than $\$ 31$ million.

The benefit of the current policy to the distributors is also immediately clear. The distributors, on average, will earn nearly 200 basis points more than their allowed return on equity ( $8.01 \%$ for 2009 ) simply through the addition of interest costs based on longterm rates rather than unfunded short-term rates.

LPMA \& BOMA submit that just and reasonable rates cannot be the end product of the current policy related to the deemed or notional long-term debt. Requiring ratepayers to pay for interest costs that do not exist is not more justifiable than including wages and salaries for employees that do not exist.

LPMA \& BOMA have completed an analysis for one utility, London Hydro to show the impact of two scenarios. This analysis is included in Appendix D to these comments. In the first scenario (columns C \& D), the utility has no deemed long-term debt. Only the actual long-term debt is included in the revenue requirement at the long-term debt rate. All unfunded debt is classified as short-term debt. As shown in this analysis, the utility has a net revenue sufficiency of $\$ 1.75$ million (column $C$ ), compared to the Board approved method (column B). On a grossed up basis, this would result in a result in a gross revenue sufficiency of more than $\$ 2.6$ million (column $C$ ). This sufficiency represents approximately $4.5 \%$ of the distribution revenues. In other words, there would be an across the board reduction in distribution rates of $4.5 \%$ for all ratepayers if the deemed long-term debt were treated for regulatory purposes as unfunded short-term debt. The utility continues to be able to earn the approved return on equity of $8.01 \%$.

The second scenario shown in Appendix D sets the level of short-term debt equal to the working capital allowance (WCA) and assumes that the utility increases its actual longterm debt to the level required to balance its financing requirements. In this example, the amount of long-term debt would be just over $\$ 90$ million (columns E \& F). In this example, which LPMA \& BOMA believe reflect the appropriate approach that should be taken; the net revenue sufficiency is about $\$ 1.1$ million. The gross sufficiency is about $\$ 1.65$ million. Reducing distribution revenues by this amount would reduce rates on average by $2.85 \%$, while allowing the utility to earn its allowed return on equity, cover the actual costs associated with the $\$ 90$ million in long-term debt and provide the deemed return on the short-term debt.

## c) Determination of the Deemed Short-Term Debt Rate

In the 2006 Report, the Board determined that the deemed short-term debt rate would be calculated as the average of the 3-month bankers acceptance rate plus a fixed spread of 25 basis points. This was consistent with the Board's method for accounting interest rates (i.e. short-term carrying cost treatment) for variance and deferral accounts. The Board issued a letter dated November 28, 2006 explaining the accounting interest rates methodology for regulatory accounts (EB-2006-0117).

The 25 basis point spread was based on an analysis done by Staff that compared the three-month banks' acceptance rate with the one-year Canada T-bill rate plus a corporate spread calculated as the difference between the three-month corporate paper rate and the 90 -day T-bill rate. Over the period 2001 through the middle of 2006 Staff found that the average difference was 27 basis points.

LPMA \& BOMA have replicated the Staff calculation for the last 12 months for which data is available (October, 2008 through September, 2009). The average spread over this period is 54 basis points. Table 7 shows the calculation of the spread.

LPMA \& BOMA recommend that the Board continue with its current deemed short-term debt rate methodology of adding a static spread to the three-month banker's acceptance.

Table 7 - Recent Short-Term Debt Rate Spreads

| (1) | 1 Year <br> T-Bill | 3 Month Prime Corporate Paper Rate | 3 Month T-Bill | Staff Calculation | $\begin{gathered} 3 \text { Month } \\ \text { BA } \end{gathered}$ | Spread |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | V122533 | V122491 | V122531 | $(d)=(a)+(b)-$ <br> (c) | V122527 |  |
|  | (a) | (b) | (c) |  | (e) | $(\mathrm{f})=(\mathrm{d})-(\mathrm{e})$ |
| Oct 08 | 2.05 | 2.95 | 1.98 | 3.02 | 2.63 | 0.39 |
| Nov 08 | 1.61 | 2.68 | 1.70 | 2.59 | 2.20 | 0.39 |
| Dec 08 | 0.85 | 2.22 | 0.83 | 2.24 | 1.41 | 0.83 |
| Jan 09 | 0.98 | 1.30 | 0.83 | 1.45 | 1.02 | 0.43 |
| Feb 09 | 0.80 | 1.23 | 0.67 | 1.36 | 0.75 | 0.61 |
| Mar 09 | 0.61 | 1.05 | 0.39 | 1.27 | 0.51 | 0.76 |
| Apr 09 | 0.44 | 0.70 | 0.22 | 0.92 | 0.31 | 0.61 |
| May 09 | 0.49 | 0.60 | 0.20 | 0.89 | 0.30 | 0.59 |
| Jun 09 | 0.55 | 0.54 | 0.24 | 0.85 | 0.32 | 0.53 |
| Jul 09 | 0.59 | 0.40 | 0.23 | 0.76 | 0.32 | 0.44 |
| Aug 09 | 0.53 | 0.43 | 0.21 | 0.75 | 0.31 | 0.44 |
| Sep 09 | 0.57 | $\underline{0.39}$ | 0.22 | 0.74 | 0.30 | 0.44 |
| Average | 0.84 | 1.21 | 0.64 | 1.40 | 0.87 | 0.54 |

(1) Bank of Canada series identifiers

Recognizing current financial market conditions, LPMA \& BOMA recommend that this spread should be increased from 25 basis points to 50 basis points, reflecting both the increase to 54 basis points over the past year and the decline in the spread that has taken place since March, 2009.

The Board may want to update the this spread calculation on an annual basis and use the resulting 12 month average spread as the addition to the three-month bankers acceptance rate. This adjustment to the methodology would ensure that the spread would reflect current market conditions on an ongoing basis.

## d) Determination of the Deemed Long-Term Debt Rate

The deemed long-term debt rate is calculated as the long Canada bond forecast (used in the return on equity formula) plus an average spread of " $\mathrm{A} / \mathrm{BBB}$ " rated corporate bond yields. The average spread is calculated from the observed spread between Government
of Canada bonds and the Long-term Bond Yields - All Corporates that is available from TSX Inc. on a subscription basis.

LPMA \& BOMA submit that the Board should substitute an average spread that is based on the difference between Government of Canada bonds and Canadian Utility A-rated bond yields and add this onto the long Canada bond forecast to determine an appropriate deemed long-term debt rate for utilities. This approach replaces all corporates with utility bond yields. It is submitted that it is more appropriate to base a deemed utility rate on utility yields, rather than on all corporate yields.

For 2009 the Board determined that the deemed long-term debt rate was $7.62 \%$, based on a long Canada yield forecast of $3.714 \%$ and an average spread of $3.906 \%$ (see Table 3). However, as shown in the Bloomberg data provided in Appendix E (provided by Concentric Energy Advisers) to these comments, the spread between Canada utility Arated 30 -year bonds and Government of Canada 30 -year bonds peaked at 300 basis points, not the 390 used by the Board in the calculation of the deemed long-term debt rate. Mr. Carmichael verified this figure, indicating the Canadian utility spread over long Canada bond yields was about 300 basis points as we went through the financial crisis (Sept. 22 Transcript, page 135). As noted above, this is 90 basis points lower than that used by the Board to set the 2009 deemed long-term debt rate.

The graph in Appendix E also reveals that the spread between the Canada utility A-Rated 30 -year bonds and Government of Canada 30-year bonds was in the range of 130 basis points. The Board's spread used to set the 2008 deemed long-term debt rate was 164 basis points..

The Board initiated this consultation, in part, based on the decline in the in the spread of the return on equity and the deemed long-term debt rate from 247 basis points in 2008 to 39 basis points in 2009.

If the Board had used the utility spreads estimated above (130 basis points in 2008 and 300 basis points in 2009), the deemed long-term debt rates would have been approximately $5.7 \%$ in 2008 and $6.7 \%$ in 2009. The spread between these deemed longterm debt rates and the return on equity would then have been about 290 basis points in 2008 and 130 basis points in 2009. While still a significant decline in the differential between 2008 and 2009 of 160 basis points, this decline is lower than the 208 basis point decline based on the current deemed long-term debt rate methodology.

LPMA \& BOMA further note that based on the most recent information provided in Appendix E the spread between the utility A and Government of Canada bonds is about 140 basis points. Added to the September forecast for the long Canada bond yield of $4.224 \%$ (see Table 1), this spread would result in a deemed long-term debt rate of about $5.6 \%$. The return on equity based on the September, 2009 data is $8.39 \%$. This results in a utility bond yield based deemed long-term debt differential from the return on equity of about 280 basis points, back in line with the 2008 result.

LPMA \& BOMA further submit that the Board should use at least one publicly available source of information used to calculate the spread between Canadian utility A-rated bonds and the long Government bonds.

As noted earlier, the Board currently subscribes to information from TSX Inc. related to the all corporate yields. It is not known to LPMA \& BOMA if Canadian utility long-term bond yield information is available from this source. If such yield data is available, the Board should use it in place of the all corporate yield data. In addition, or in place of the TSX Inc. all corporate data, the Board should use the Bloomberg Canada Utility A-rated 30 -year yield information. In addition the Board should use information available from Infrastructure Ontario on their website that shows the indicative lending rates that are available to local distribution companies for terms ranging from 5 years to 40 years (http://www.infrastructureontario.ca/en/loan/rates/sectors/local_distribution_rates.asp).

Specifically, LPMA \& BOMA submit that the Board should use a simple average of the data available to it to calculate the historical spread between rates at which utilities can borrow and the long Canada bond yield rates. For example, if the only information available to the Board is the Bloomberg data (by subscription) and the Infrastructure Ontario data (from their website), then the Board would take the average of these figures in January of each year, calculate the spread from the long Canada bond yield for the same period and add this spread to the forecast of the long Canada bond yield to set the deemed long-term debt rate. This approach would simply replace the all corporate based spread for January with the Bloomberg/Infrastructure Ontario spread for January.

LPMA \& BOMA note that the Bloomberg and Infrastructure Ontario rates appear to be quite similar. As shown in the graph in Appendix C, the Bloomberg Canadian utility 30year bond yield was approximately $5.3 \%$. As of September 30, the Infrastructure Ontario lending rate for a loan to a local distribution company with a 30 year term was in the range of $5.2 \%$.

## e) Application of the Deemed Long-Term Debt Rate

In the 2006 Report, the Board determined the circumstances where the deemed long-term debt rate would be applicable. There were three such circumstances identified by the Board: new affiliated debt, all variable-rate debt and all affiliate debt that was callable on demand. LPMA \& BOMA make submissions on the applicability of the deemed longterm debt in each of these situations.

First, LPMA \& BOMA support the continued use of the deemed long-term debt rate as applied to the determination of the rate to be used for new affiliate debt. In particular, for rate making purposes, the new affiliated debt should be costed at the lower of the contracted rate and the deemed long-term debt rate. This ensures that ratepayers are not paying more than they should for this affiliate debt. However, LPMA \& BOMA do not believe this methodology goes far enough to protect ratepayers. The Board should direct any utility that proposes to utilize new affiliate debt as part of its financing in the bridge
and/or test years to provide evidence that it was unable to find third party financing at an equivalent or lower cost than that obtained from its affiliate.

Second, LPMA \& BOMA submit that variable-rate debt should not have the deemed long-term debt rate applied to it; rather the deemed short-term debt rate should be applicable to this variable-rate debt. Distributors should expect to pay a lower rate for a variable rate or a floating interest rate loan than it would for a long-term loan. Variable rate loans should typically cost less than fixed rate loans, assuming a normal yield curve. In return for paying a lower rate, the utility takes on the risk that interest rates will go up in the future. LPMA \& BOMA submits that ratepayers do not receive any benefits related to the lower cost that should be associated with variable-rate debt instruments. Under the current policy, ratepayers pay the same as if the debt instrument had a longterm fixed rate. An analogy is the rates paid for residential mortgages. A variable-rate mortgage carries a lower rate than fixed rate mortgages. A homeowner would not want a variable rate mortgage at the same rate as a fixed rate mortgage since they would pay the same cost and have the added risk associated with rate changes. In the same way, it does not make sense that ratepayers pay the same rate as if the rate was fixed for a long-term loan and then bear the risk of higher interest rates being applied to this debt instrument the next time the utility files a cost of service application. The rewards should be commensurate with the risk. Under the current policy, there are no rewards for ratepayers, just the risk.

Third, LPMA \& BOMA submit that the deemed long-term debt rate should not be applicable to affiliate debt that is callable on demand if the loan is callable by the affiliate. LPMA \& BOMA would expect that all affiliate debt would be callable by the affiliate and some may also be callable by the utility. Affiliate debt that is callable by the affiliate should have a lower rate to reflect the benefit of this option to the affiliate. The argument supporting this is similar to that presented above for variable-rate debt. It is submitted that the rate that should be applicable to affiliate debt that is callable would be a rate for a term similar to the length of the notice required to call the loan. Since most
callable loans are callable with 365 days or less notice, the deemed short-term debt rate should be applied to it.

## KEY AREA 3-TO GUIDE THE BOARD'S DISCRETION TO ADJUST THOSE RESULTS, IF APPROPRIATE

LPMA \& BOMA submit that the Board's discretion to adjust the results that come out of the Board's formulaic methodology should be limited to those cases where the Board has evidence that the results are not appropriate.

LPMA \& BOMA specifically submit that the Board's discretion should only be applied in exception and unusual circumstances as discussed below.

## Allowed Return on Equity

LPMA \& BOMA believe that the return on equity should continue to be calculated as is currently done, or with the modification proposed earlier in these comments when the long-term Government of Canada bond yield is between 150 and 250 basis points away from the $5.50 \%$ base used in the current formula.

LPMA \& BOMA believe the Board's discretion should be generally limited to the following circumstance. The Board could suspend the calculation of the allowed return on equity and by default use the figure determined for the previous year. This suspension would only be used if there were a significant and rapid change in financial market conditions that made it impossible for the Board to convene a full cost of capital proceeding in time to have a decision in place to be applied to the applications before it. This approach could have been utilized by the Board to set the 2009 cost of capital parameters during the financial crisis earlier this year.

The Board should also have the discretion to initiate a full cost of capital proceeding if long-term Government of Canada bond yield is in the 150 to 250 basis point range above or below the $5.50 \%$ base used in the formula and is either concerned that these yields are
expected to remain in this range for an extended period or may move beyond the 250 basis point range around the base in the near term.

## Deemed Long-Term Debt Rate

If the Board adopts the recommendations of LPMA \& BOMA with respect to the setting of and application of the deemed long-term debt rate, then it is submitted that the only time the Board may need to use its discretion to adjust the deemed long-term debt rate is when it suspends the calculation of the allowed return on equity. In the case where the Board uses its discretion to suspend the change in the return on equity, it should also suspend the change in the calculation of the deemed long-term debt rate.

If the Board continues to use data from one source to determine the deemed long-term debt rate, then LPMA \& BOMA submit that the Board should review the other sources or relevant information to ensure that the resulting figure is comparable to the financing costs from other sources. These sources could include the TMX Group, Bloomberg, Infrastructure Ontario, and long-term debt borrowed by utilities from third parties.

## Deemed Short-Term Debt Rate

LPMA \& BOMA submit that the only time the Board may need to use its discretion to adjust the deemed short-term debt rate is when it suspends the calculation of the allowed return on equity. In the case where the Board uses its discretion to suspend the change in the return on equity, it should also suspend the change in the calculation of the deemed short-term debt rate.


APPENDIX A



## APPENDIX B



## APPENDIX C



Source: Bloomberg
Above, we've plotted a comparison of the daily yield observatons for Bloomberg Canadian Utility Index to both the Moody's Corporate A-rated index and the Bloomberg Canadian Corporate A-rated index, as well as the 30-year Government of Canada long bond yield for the period from March 5, 2002 through August 31, 2009.

APPENDIX D

London Hydro Inc.

|  | Approved Rates |
| :---: | :---: |
| Revenue Sufficiency Grossed Up | 0 |
| Distribution Revenue | 58,087,982 |
| Other Operating Revenue (Net) | 3,694,100 |
| Total Revenue | 61,782,082 |
| Reduction in Distribution Revenues |  |
| Costs and Expenses |  |
| Operation \& Maintenance | 27,809,763 |
| Depreciation \& Amortization | 15,919,000 |
| Capital Taxes | 473,233 |
| Interest | 7,690,826 |
| Total Costs and Expenses | 51,892,822 |
| Utility Income Before Income Taxes | 9,889,260 |
| Income Taxes | 2,669,815 |
| Utility Income | 7,219,444 |
| Rate Base | 225,325,979 |
| Equity Portion | 40.00\% |
| Equity Component of Rate Base | 90,130,392 |
| Return on Equity | 8.01\% |
| Target Return on Equity | 8.01\% |
| Return on Rate Base | 7,219,444 |
| Revenue Sufficiency | (0) |

Calculation of Interest Costs

| Long Term Debt | $126,182,548$ |
| :--- | ---: |
| Short Term Debt | $\underline{9,013,039}$ |
| Total Debt | $\mathbf{1 3 5 , 1 9 5 , 5 8 7}$ |
|  |  |
| Long Term Debt Cost @ $6.00 \%$ | $\mathbf{7 , 5 7 0 , 9 5 3}$ |
| Short Term Debt Cost @ $1.33 \%$ | $\underline{119,873}$ |
| Total Debt Cost | $\underline{\text { Z.690,826 }}$ |

## Calculation of Income Taxes

| Utility Income Before Income Taxes | 9,889,260 |
| :---: | :---: |
| Adjustments to Raxable Utility Income | (1,411,031) |
| Regulatory Taxable Income | 8,478,229 |
| Income Tax |  |
| Federal Tax @ 19\% | 1,610,863 |
| Provincial Tax - First \$500,000 @ 5.50\% | 27,500 |
| - All over \$500,000 @ 14.00\% | 1,116,952 |
| - Clawback on $\$ 500,000$ to \$1,500,000 @ 4.25\% | 42,500 |
| Other Tax Credits | (128,000) |
| Total Taxes | $\underline{2.669 .815}$ |

EB-2008-0235
B

$\begin{array}{cc}\text { No Deemed } & \text { No Deemed } \\ \text { Long Term } & \text { Long Term }\end{array}$ Debt Debt

| 0 | $(2,623,725)$ |
| ---: | ---: |
| $58,087,982$ | $58,087,982$ |
| $3,694,100$ | $\underline{3,694,100}$ |
| $61,782,082$ | $59,158,357$ |
|  | $\underline{4,52 \%}$ |


| $\mathbf{2 7 , 8 0 9 , 7 6 3}$ | $27,809,763$ |
| ---: | ---: |
| $15,919,000$ | $15,919,000$ |
| 473,233 | 473,233 |
| $\underline{5,067,101}$ | $\underline{5,067,101}$ |
| $49,269,097$ | $49,269,097$ |
| $12,512,985$ | $\mathbf{9 , 8 8 9 , 2 5 9}$ |
| $\underline{3,535,645}$ | $\underline{2,669,815}$ |
| $\underline{\mathbf{8 , 9 7 7 , 3 4 0}}$ | $\underline{\mathbf{7 , 2 1 9 , 4 4 4}}$ |


| $225,325,979$ | $225,325,979$ |
| ---: | ---: |
| $40.00 \%$ | $40.00 \%$ |


| $\mathbf{9 0 , 1 3 0 , 3 9 2}$ | $90,130,392$ |
| ---: | ---: |
|  |  |
| $9.96 \%$ | $8.01 \%$ |
| $8.01 \%$ | $8.01 \%$ |
|  |  |
| $\mathbf{7 , 2 1 9 , 4 4 4}$ | $7,219,444$ |

1,757,896
(0)
$\frac{\text { SCENARIO } 2}{F}$

Short Term Short Term $\begin{array}{rr}\text { Debt Equals } & \text { Debt Equals } \\ \text { WCA } & \text { WCA }\end{array}$
$(1,653,330)$
58,087,982
3,694,100
60,128,752
2.85\%

| $27,809,763$ | $27,809,763$ |
| ---: | ---: |
| $15,919,000$ | $15,919,000$ |
| 473,233 | 473,233 |

233
6,037,497
50,239,493

9,889,259
$2,669,815$
7.219.444

225,325,979 225,325,979
40.00\% 40.00\%
$90,130,39290,130,392$
9.24\% 8.01\%
8.01\%

7,219,444
7,219,444
1,107,731
(0)

| $90,779,344$ | $90,779,344$ |
| ---: | ---: |
| $\underline{44,416,243}$ | $\underline{44,416,243}$ |
| $\mathbf{1 3 5 , 1 9 5 , 5 8 7}$ | $135,195,587$ |
|  |  |
| $5,446,761$ | $5,446,761$ |
| $\underline{590,736}$ | $\underline{590,736}$ |
| $\underline{6.037,497}$ | $\underline{6,037,497}$ |


| $12,512,985$ | $9,889,259$ | $11,542,589$ | $9,889,259$ |
| ---: | ---: | ---: | ---: |
| $\frac{(1,411,031)}{11,101,954}$ | $\frac{(1,411,031)}{8,478,228}$ | $10,131,558$ | $\frac{(1,411,031)}{8,478,228}$ |
|  |  |  |  |
|  |  |  |  |
| $2,109,371$ | $1,610,863$ | $1,924,996$ | $1,610,863$ |
| 27,500 | 27,500 | 27,500 | 27,500 |
| $1,484,274$ | $1,116,952$ | $1,348,418$ | $1,116,952$ |
| 42,500 | 42,500 | 42,500 | 42,500 |
|  |  | $\underline{(128,000)}$ | $\underline{(128,000)}$ |
| $\underline{(128,000)}$ | $\underline{(128,000)}$ | $\underline{3,215,414}$ | $\underline{2,669,815}$ |

## APPENDIX E



Calculation of Credit Spread = Corporate Bond Yield - Long Canada Government Bond Yield

## Average Daily Spreads 3/5/2002-8/31/2009:

Moody's Corporate A-rated 30-year Bond Yield Over Canada Long Bond $=162$ basis points
Bloomberg Canadian A-rated 30-year Utility Bond Index over Canada Long Bond = 122 basis points
Bloomberg Canadian A-rated 30-year Corporate Bond Index over Canada Long Bond = 145 basis points

