HAND DELIVERED

March 18, 2016

Board of Commissioners
of Public Utilities
P.O. Box 21040
120 Torbay Road
St. John's, NL A1A 5B2

Attention: G. Cheryl Blundon
Director of Corporate Services
and Board Secretary

Ladies and Gentlemen:

Re: 2016/2017 General Rate Application

Please find enclosed the original and 12 copies of Newfoundland Power's:

(1) Cost of Capital Rebuttal Testimony prepared by James Coyne of Concentric Energy Advisors Inc,

(2) Finance Rebuttal Evidence, prepared by Newfoundland Power, and

(3) Newfoundland Power Inc. Executive Compensation Review prepared by Karl Aboud of Hay Group Limited.

For convenience, these are provided on three-hole punched paper.

A copy of this letter, together with enclosures, has been forwarded directly to the parties listed below.

If you have any questions regarding the enclosed, please contact the undersigned at your convenience.

Yours very truly,

Peter Alteen, QC
Vice President,
Regulation & Planning

Enclosures

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PREPARED REBUTTAL TESTIMONY:
JAMES M. COYNE

PREPARED FOR:
NEWFOUNDLAND POWER INC.

BEFORE THE:
NEWFOUNDLAND AND LABRADOR BOARD OF COMMISSIONERS OF PUBLIC UTILITIES

MARCH 18, 2016

www.ceadvisors.com

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I. INTRODUCTION

Q. Please state your name and business address.

A. My name is James M. Coyne, and I am employed by Concentric Energy Advisors, Inc. ("Concentric") as a Senior Vice President. My business address is 293 Boston Post Road West, Suite 500, Marlborough, MA 01752.

Q. Did you also submit a pre-filed expert report in this proceeding?

A. Yes, I submitted evidence on behalf of Newfoundland Power Inc. ("Newfoundland Power" or the "Company") with regard to the appropriate cost of equity and capital structure.

Q. What is the purpose of your Rebuttal Testimony?

A. The purpose of my Rebuttal Testimony is to respond to the evidence submitted on behalf of the Consumer Advocate of the Province of Newfoundland and Labrador ("Consumer Advocate") by Dr. Laurence D. Booth pertaining to the recommended return on equity ("ROE") and proposed capital structure for Newfoundland Power and the evidence of Dr. Sean Cleary with respect to the business and financial risk of Newfoundland Power and the implications for the Company's capital structure.

II. OVERVIEW

A. Summary of Response to Dr. Booth's Testimony

Q. Please provide a brief overview of Dr. Booth's testimony.

A. Dr. Booth recommends an ROE of 7.5 percent for Newfoundland Power on a capital structure comprised of 40 percent common equity, 5 percent deemed preferred equity, and 55 percent long-term debt. Dr. Booth adjusts his traditional CAPM analysis by 45 basis points for higher than normal credit spreads and by 130 basis points for lower than normal bond yields (due to government economic policy initiatives). He also provides a DCF analysis for the broader market in Canada and the U.S., as well as for the S&P 500 Electric Utilities and selected groups of U.S. electric and gas utilities. He also incorporates a financing and flexibility adjustment of 50 bps. Dr. Booth recommends continued suspension of the Automatic Adjustment Mechanism ("AAM") due primarily to the impact of central banks on bond markets resulting in government bond yields below "equilibrium" levels.[1]

Q. Are there areas in which you and Dr. Booth are in agreement?

A. Yes. Dr. Booth and I agree that:

- The Canadian economy has slowed due in part to the collapse of energy resource prices and the economic slowdown in China.
- Resource intensive provinces like Alberta and Newfoundland and Labrador are hurt by these forces, but others such as Ontario and Québec may benefit.

[1] Evidence of Dr. Laurence D. Booth, at 2.

- Analysts project that Canada's economy will adjust to these influences and should be headed toward resumed economic growth over the next several years.
- Newfoundland and Labrador's economy is among the weakest of the Canadian provinces in terms of economic growth.
- Interest rates are abnormally low and have been influenced by global economic policy, and forecasts of interest rates must anticipate central bank decisions.
- Analyses that depend on the current level of government interest rates, such as the CAPM or risk premium analysis, are not providing reasonable results.
- The Automatic Adjustment Mechanism should not be reinstated at this time.
- A 50 bps adjustment for financing and flexibility is reasonable and appropriate.

Q. Which are the primary areas in which you and Dr. Booth disagree?

A. Dr. Booth's ROE estimate of 7.5 percent for Newfoundland Power and his proposed reduction in the Company's common equity ratio from 45 percent to 40 percent are both individually and collectively lower than any reasonable estimate of Newfoundland Power's cost of capital. Dr. Booth's recommendations are not reflective of proxy group results using commonly accepted inputs for cost of capital analyses, and do not adequately reflect the risk of Newfoundland Power relative to the other investor-owned electric utilities in Canada or the U.S. On that basis, Dr. Booth's recommendations do not satisfy the Fair Return Standard. The following lists my key areas of disagreement with Dr. Booth:

- Dr. Booth's judgmental estimate of beta of 0.45 to 0.55 is substantially below the Value Line and Bloomberg beta estimates used in my CAPM analyses for the Canadian, North American and U.S. proxy groups, and does not account for the well-documented empirical evidence that beta coefficients (below 1.0) systematically understate returns and thus warrant an adjustment towards 1.0.[2] Dr. Booth's evidence recommends adjustment towards the "grand mean" of utility betas, which results in CAPM estimates that are unreasonably low.[3] I have only experienced debate on the adjustment methodology for beta in proceedings in which Dr. Booth has been involved as a testifying witness.[4]
- Dr. Booth's estimated market risk premium of between 5.0 and 6.0 percent is lower than the market risk premium I have relied on of 7.6 percent. Dr. Booth's estimate does not reflect the well-established inverse relationship between the market risk premium and interest rates and is significantly below any forward-looking risk premium estimate based on current market data. Simply put, when interest rates are near historically low levels, the market risk premium should be higher than the long-term historical average.

[2] See Marshall E. Blume, On the Assessment of Risk, The Journal of Finance, Vol. XXVI, No. 1 (March 1971) and Marshall E. Blume, Betas And Their Regression Tendencies, The Journal of Finance, Vol. XXX, No. 3 (June 1975), where Blume found that there was strong evidence that beta regressed toward the market mean, and that tendency was strongest in the case of the lowest risk portfolios.

[3] On p. 41 of his evidence, Dr. Booth refers to his adjustment as the "Blume adjustment methodology toward their grand mean of 0.50," but the Blume methodology is premised on the tendency of beta to migrate toward the grand mean of the market, not the grand mean of utility betas.

[4] Beta adjustment methodology was not an issue in the OEB Consultative Process on Cost of Capital and the Board did not take exception to my use of adjusted Value Line and Bloomberg betas. See Report of the Board EB-2009-0084 (December 11, 2009).

- Dr. Booth's recommended ROE of 7.5 percent is near the low end of his risk premium estimate of 7.31 percent to 8.36 percent.[5] Dr. Booth also provides several DCF estimates: the overall equity market, median Corporate Canada, U.S. S&P 500 Electric companies, a sample of U.S. electric and gas utilities, and a market-to-book model for U.S. utilities. He uses these DCF analyses as support for reducing his ROE recommendation to the lower end of his risk premium result. But Dr. Booth's DCF estimates are understated because he has relied on "sustainable" growth rates, which understate future utility growth prospects, and has made an unwarranted reduction in earnings growth rates of 32 percent for electric and gas utilities based on his view that analysts' earnings per share growth rates are overly optimistic. In addition, Dr. Booth has not provided a DCF analysis using Canadian utilities. In my analysis, the Canadian proxy group's DCF results were higher than those of the U.S. group for both the constant growth and multi-stage DCF models.
- Dr. Booth's proposal for a reduction in Newfoundland Power's common equity ratio from 45 percent to 40 percent is inconsistent with his testimony that the business risk of Newfoundland Power has not materially changed since the 2012 GRA. The Board has recognized the importance of maintaining the 45 percent deemed common equity ratio due to the relatively small size of Newfoundland Power and the credit rating agencies' expectation that the consistent capital structure is an indication of continued regulatory support for the Company's credit rating and financial integrity.

[5] Evidence of Dr. Laurence D. Booth, at 51.

Furthermore, in previous Orders, the Board has consistently rejected Dr. Booth's proposal to shift five percent of Newfoundland Power's common equity to preferred equity.

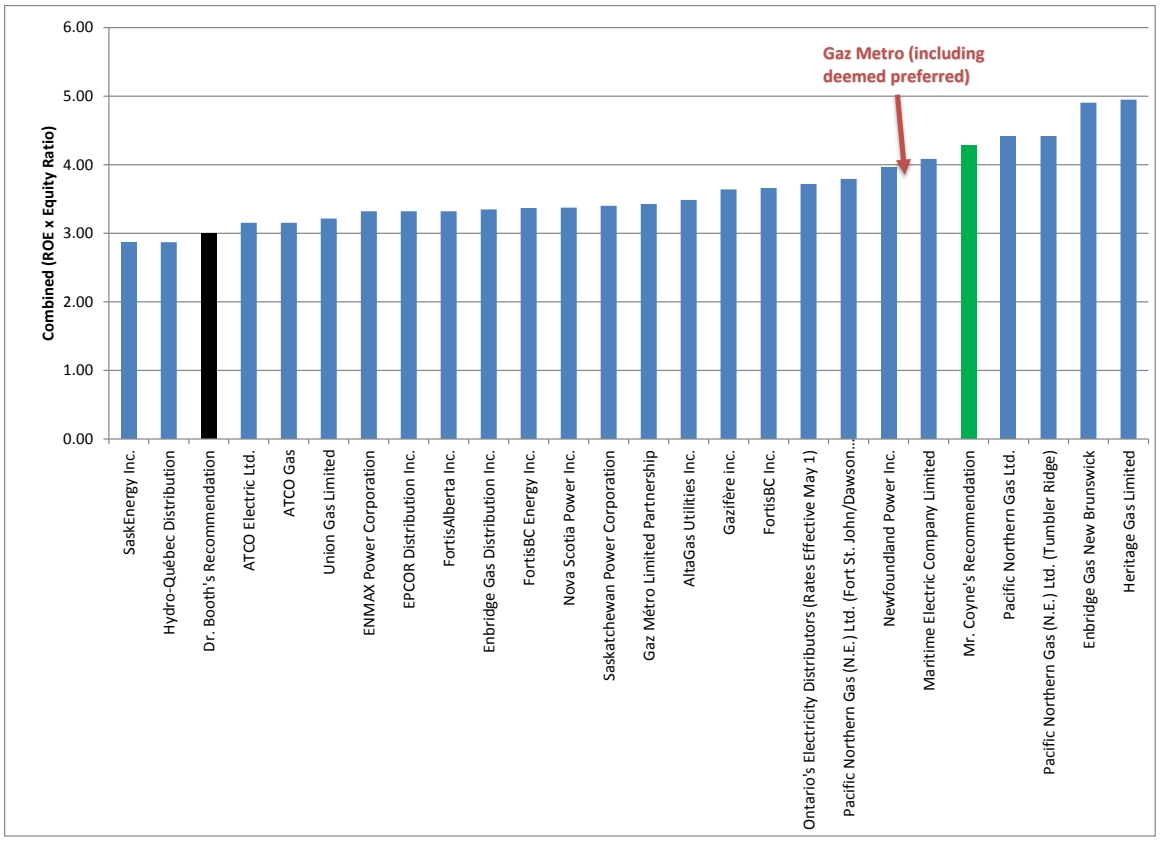
- I also disagree with Dr. Booth's characterization of utility risk versus the broader market as signaling a return to normalcy. In my opinion, the recent upward movement of utility credit spreads indicates that utilities are, in fact, viewed by investors as more risky than they were previously.
- Lastly, I disagree with Dr. Booth's analysis that, directionally, the allowed ROE for Newfoundland Power should be lower today than when it was determined by the Board in the 2012 GRA. My analysis indicates that capital costs are moving higher, and that widening credit spreads and increased market volatility are signs of increased risk aversion among investors.

Q. Can you place Dr. Booth's ROE and capital structure recommendations in the context of other Canadian electric and gas distributors?

A. Yes. From the data Concentric provided to the CGA and CEA in its May 2015 Report of allowed returns in Canada, the following chart illustrates where Dr. Booth's recommendation falls compared to other Canadian electric and gas distributors. As the figure shows, Dr. Booth's ROE recommendation of 7.5 percent combined with his common equity ratio of 40 percent produces a weighted equity cost rate of 3 percent for Newfoundland Power, which falls below every other Canadian electric or gas distributor that sets rates through a litigated proceeding with the exception of SaskEnergy and Hydro-Québec Distribution, which are provincial distributors that have the full force of the provincial government supporting their

operations and have substantially different risk profiles than Newfoundland Power. Dr. Booth's cost of capital recommendation would place Newfoundland Power at a significant disadvantage relative to other Canadian utilities when raising capital and would not satisfy the Fair Return Standard.

Figure 1: Recommendation vs. Allowed for Canadian Distributors
(ROE x equity ratio)



Source: Concentric Energy Advisors Authorized Return on Equity for Canadian and U.S. Gas and Electric Utilities, Volume III, May 1, 2015.

Q. Dr. Booth has recommended the same authorized ROE for several years. What is your view on this?

A. Dr. Booth has recommended a 7.5 percent equity return in every case I am aware in which he has testified since August 2012. Despite changes in interest rates, credit spreads, business cycle, market volatility, differing utility risk profiles and growth

prospects, Dr. Booth has consistently recommended an ROE of 7.5 percent for each of the utility cases in which he has testified (i.e., Nova Scotia Power Inc., FortisBC Energy Inc., ATCO Pipelines, Hydro-Québec Distribution and Hydro-Québec Transmission). All of the above factors affect the cost of capital, but no Canadian regulator that I am aware of has awarded any Canadian energy distributor an ROE as low as 7.5 percent.

B. Summary of Response to Dr. Cleary's Testimony

Q. Please provide a brief overview of Dr. Cleary's testimony.

A. Dr. Cleary recommends a reduction in Newfoundland Power's common equity ratio from 45 percent to 40 percent, based on his view that the Company continues to be a low business risk electric distribution utility operating in a very supportive regulatory environment.[6] According to Dr. Cleary, his quantitative analysis demonstrates that Newfoundland Power displays much lower volatility in operating income than comparable U.S. firms, and slightly below that of comparable Canadian utilities.[7] Dr. Cleary asserts that Newfoundland Power has lower financial risk than other Canadian utilities based upon a combination of an allowable ROE that is about average and an equity ratio that is much higher than average.[8] Finally, Dr. Cleary states that Newfoundland Power would maintain solid credit metrics if the equity ratio were reduced to 40 percent and the "allowable" ROE were also reduced.[9]

6 Evidence of Dr. Sean Cleary, at 2.
7 Ibid.
8 Ibid.
9 Ibid.

Q. Which are the primary areas in which you and Dr. Cleary disagree?

A. The following lists my key areas of disagreement with Dr. Cleary:

- Dr. Cleary's proposed reduction in Newfoundland Power's common equity ratio from 45 percent to 40 percent is not supported by his conclusion that the Company's business risk has not materially changed since the Board's decision in the 2012 GRA. If Dr. Cleary believes that Newfoundland Power's business risk has not materially changed since the 2012 GRA, then there is no reason for the Board to accept his recommendation to reduce the Company's deemed equity ratio.

- I provide detailed evidence on Canadian and U.S. utilities and on Newfoundland Power that demonstrates that the Company's business risk is somewhat higher today than at the time of the 2012 GRA filing. Dr. Cleary, on the other hand, has provided no detailed evidence in relation to other Canadian and U.S. utilities, or with respect to the change in Newfoundland Power's risk to support his proposed reduction in the common equity ratio.

- Dr. Cleary has presented a "quantitative analysis" of the Company's business risk by examining the variability in Earnings Before Interest and Taxes ("EBIT") for Newfoundland Power as compared to the companies in the Canadian and U.S. proxy groups. Dr. Cleary's EBIT analysis, however, is conducted at the holding company level for the U.S. proxy group companies, at the operating company level for two of three Canadian proxy group companies (i.e., Enbridge Gas Distribution and Nova Scotia Power) and at

the holding company level for the other Canadian proxy group company (i.e., Gaz Métro Limited Partnership), and at the operating utility level for Newfoundland Power. As such, Dr. Cleary's quantitative analysis provides an inconsistent basis of comparison that cannot be relied upon to assess the relative business risk of Newfoundland Power.

- Dr. Cleary states that the small size of Newfoundland Power is not a new risk. While I agree with Dr. Cleary that the Company's small size is nothing new, the Board has consistently determined that the risk associated with Newfoundland Power's small size supports an above average common equity ratio. In fact, I have shown that the small size of Newfoundland Power has a tangible effect on the Company's ability to raise debt capital and results in higher borrowing costs.

- Dr. Cleary states that the Muskrat Falls development does not increase the weather-related risk for Newfoundland Power. As explained in my Report, the Muskrat Falls development is located a long distance from the primary load center, leading to supply uncertainties. More importantly, the price of electricity is expected to rise significantly. Credit rating agencies such as Moody's Investors Service and DBRS have written that higher power supply costs from Newfoundland and Labrador Hydro ("NLH") are likely to increase the regulatory risk that the Board will disallow or defer recovery of Newfoundland Power's other prudently incurred costs or reduce its cost of capital in an effort to mitigate rate shock for customers. This increases the

risk that Newfoundland Power will not be able to recover its costs on a timely basis or earn its authorized return.

- Dr. Cleary's credit metric analysis is based on his incorrect belief that Newfoundland Power has an "A" rating, when in fact the Company's long-term issuer rating from Moody's is "Baa1". Newfoundland Power finances its rate base with first mortgage bonds, which are rated "A2" by Moody's, due to the collateral provided to debtholders (i.e., the debt is secured by utility property, plant and equipment). In addition, Dr. Booth notes that credit metrics are not the most important tool used by credit rating agencies in assigning debt ratings.[10]

Q. How is the remainder of your Rebuttal Testimony organized?

A. In Section III, I discuss areas of difference with Dr. Booth's observations on capital market conditions; in Section IV, I discuss where Dr. Booth and I diverge with respect to the CAPM analysis; in Section V, I discuss areas of difference with Dr. Booth in his application of the DCF model; and in Section VI, I discuss my differences with Dr. Booth and Dr. Cleary regarding the relative risk of Newfoundland Power as compared to other investor-owned electric utilities in Canada and the U.S. Finally, I affirm my ROE and capital structure recommendations.

[10] Evidence of Dr. Laurence D. Booth, at 98.

III. CAPITAL MARKET CONDITIONS

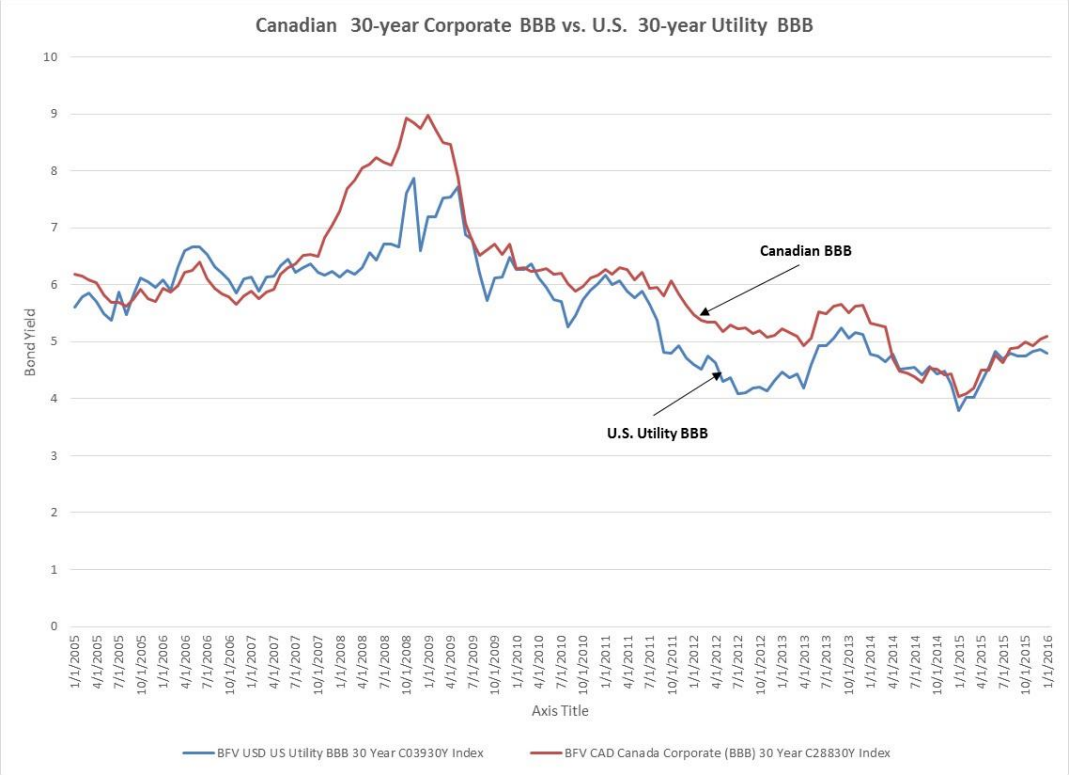
Q. On p. 29 of his evidence, Dr. Booth indicates that the increase in "A" credit spreads is due to the general level of volatility and a "minor flight to quality" and is not indicative of increased risk, and that the important issue to consider is that utilities "do not pay the spread they pay the full interest cost." Do you agree with Dr. Booth's interpretation of the increases in credit spreads?

A. No, I do not. The difference between the risk free yield and the corporate yield is the credit spread, which is a quantification of default risk in the current capital market environment. When the credit spread increases, either default risk is perceived to be higher, or investors are becoming more risk averse. Either scenario results in higher capital costs in relation to the risk free rate. I agree that the total interest rate paid is an important consideration. However, the credit spread quantifies the compensation investors demand for making the investment in relation to the risk-free investment. If the credit spread is increasing, investors are demanding more compensation, and this points to higher risk relative to the comparative period. This is a very important point and should not be dismissed or overlooked, as Dr. Booth suggests. In my opinion, investors are growing more risk averse in the wake of the sluggish Canadian economy, troubles in China and volatile equity markets, and are demanding more compensation for making equity investments (including utility investments) despite the fact that the general trend in government bond yields has been downwards.

Q. On p. 29, Dr. Booth also comments on the yield difference between the "generic" BBB bond in Canada versus the Utility BBB yield in the U.S., noting that the U.S. utility yield was higher by 81 bps, suggesting that the higher U.S. bond yield indicates that the cost of capital for Canadian utilities is significantly lower than for U.S. utilities. Have you performed a similar calculation and are your findings consistent with those of Dr. Booth?

A. Yes, I have performed my own calculation to assess Dr. Booth's statements, but my findings differ. First, it seems to me that his comparison of Generic BBB bond yields in Canada to Utility BBB bond yields in the U.S. is not a useful comparison. These are not comparable bond baskets. Differences in bond terms and the types of companies in each index are not factored into Dr. Booth's comparison. I have constructed a chart of U.S. Utility BBB-rated and Canadian Corporate BBB-rated bond yields from Bloomberg's 30-year fair value curves. In this way, we can, at least, eliminate differences due solely to differing debt maturities and issuer characteristics. According to this data, the 30-year Canadian Corporate BBB bond yield is currently above the U.S. Utility BBB 30-year bond yield by roughly 30 bps. The average difference for the period is 42 bps. I find this difference reasonable in light of the lower risk of the utility bond.

Figure 2: Canadian Corporate BBB vs. U.S. Utility BBB bond yields



Source: Bloomberg 30-year fair value curves

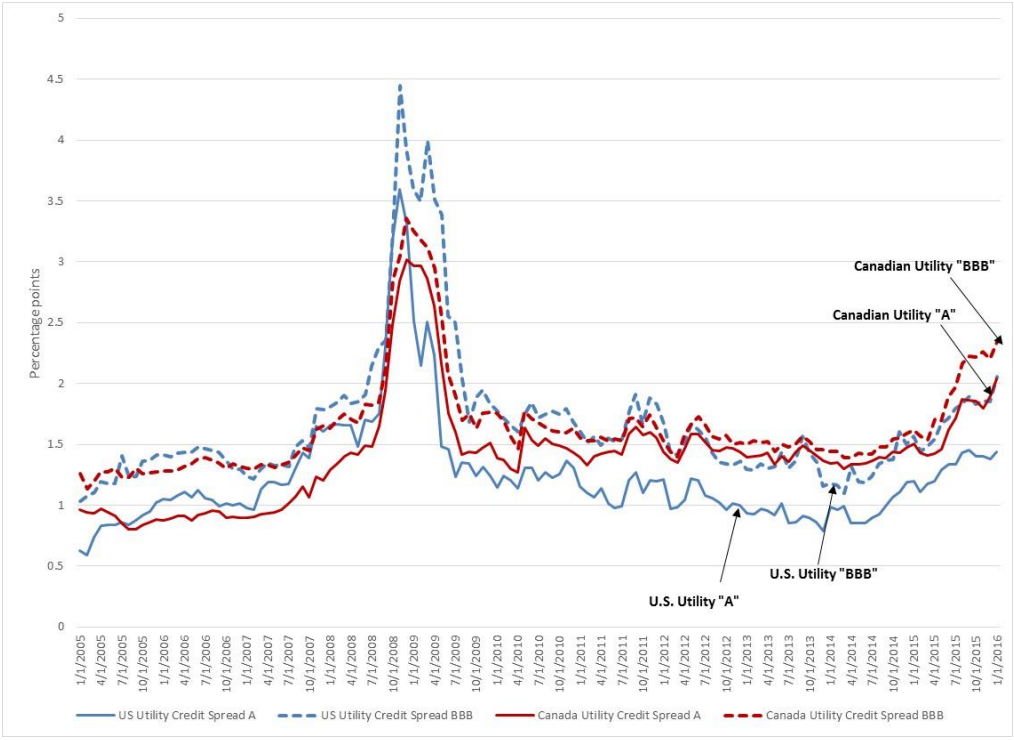
Q. You state that comparing BBB U.S. Corporate bond yields to BBB Canadian utility bond yields is not a useful comparison. Have you performed a more relevant comparison between U.S. and Canadian bond yields?

A. Yes. I have compared A-rated and BBB-rated U.S. and Canadian utility bonds. This analysis shows that, although Canadian utilities pay a slightly lower absolute level for debt capital, the difference is due to the 71 bps higher U.S. 30-year government bond yield, partially offset by higher credit risk in Canada. At January 29, 2016, the U.S. 30-year, A-rated and BBB-rated utility bond yields were 4.182 percent and 4.797 percent, respectively. The Canadian 30-year fair value utility bond yields were 4.071 percent and 4.378 percent. Thus, the U.S. A-rated utility bond yield is roughly 11 bps higher than its Canadian counterpart, and the U.S. BBB-rated

utility bond yield is roughly 42 bps higher than its Canadian counterpart. The differential of 11 basis points is quite small given that we are primarily focused on A rated utilities.

However, the absolute difference in U.S. and Canadian utility bond yields provides little information about the investment risk of a Canadian utility relative to a U.S. utility. If Dr. Booth wishes to compare the risk between U.S. and Canadian utility investments, the credit spread would provide one indication of that risk differential. I have calculated the credit spread by subtracting the 30-year government bond yield from the applicable corporate and utility bond yields. Figure 3 is a graph of 30-year U.S. and Canadian A-rated and BBB-rated utility bond credit spreads.

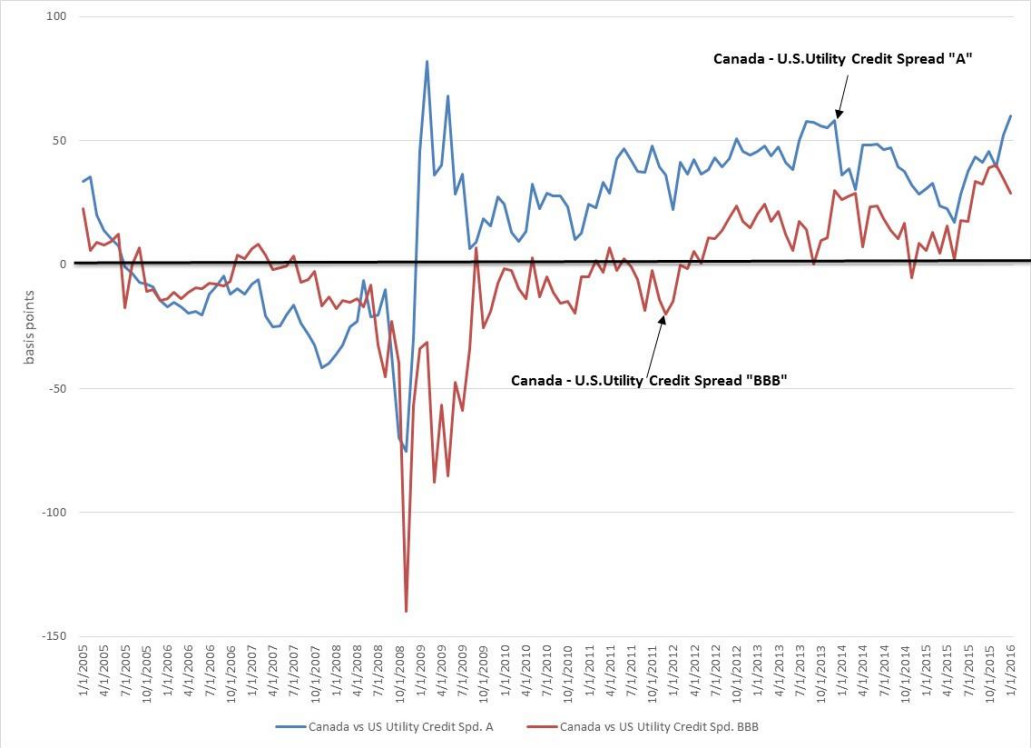
Figure 3: U.S. and Canadian 30-year Utility Bond Credit Spreads over 30-year Government Bonds



Source: Bloomberg 30-yr utility bond fair value curves for U.S. and Canada less applicable 30-year govt. bond yield

As Figure 3 shows, Canadian utility credit spreads are above those in the U.S. and have been so since 2008-2009. To examine the differences more closely, I have plotted the difference between Canadian and U.S. utility credit spreads for both the A-rated and BBB-rated bonds by subtracting the U.S. credit spread from the Canadian credit spread.

Figure 4: Difference in Canadian Utility Credit Spreads over U.S. Utility Credit Spreads



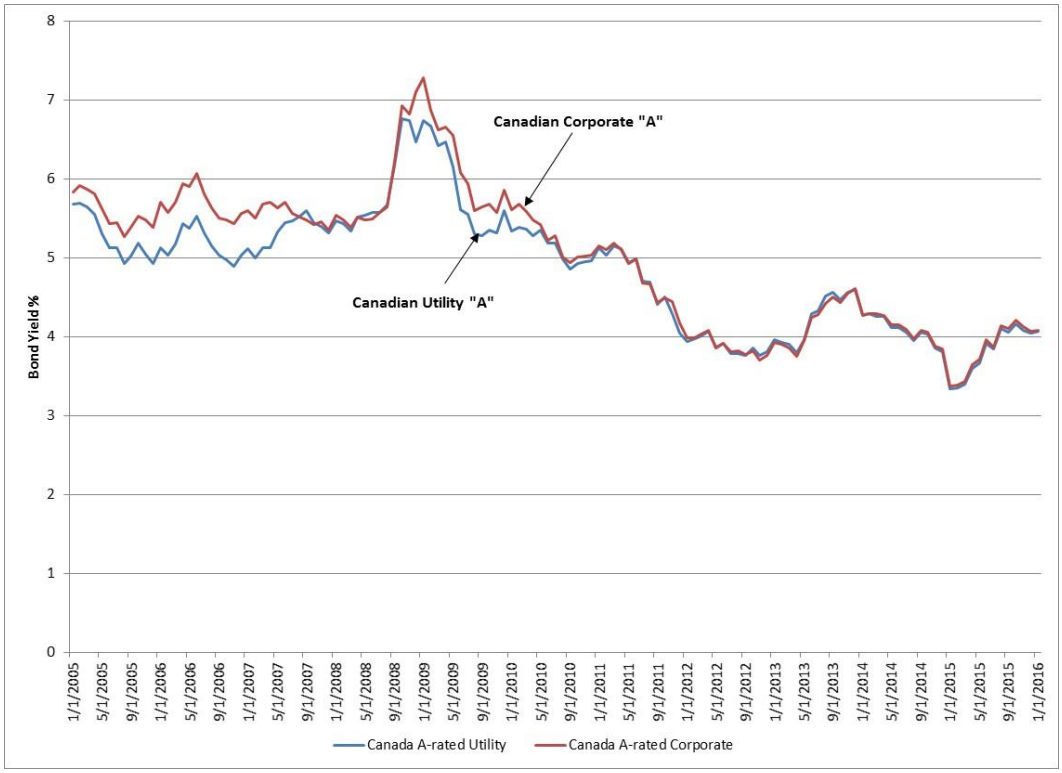
Source: Bloomberg 30-yr utility bond fair value curves for U.S. and Canada less applicable 30-year govt. bond yield

As Figure 4 illustrates, both the A-rated and BBB-rated Canadian utility bond credit spreads have been consistently higher than in the U.S. for several years, and the difference appears to be widening. With respect to the above figures, I draw a different conclusion than Dr. Booth. These figures confirm that differences in utility financing costs between Canada and the U.S. are smaller than Dr. Booth has suggested, and such differences are due primarily to lower government bond yields in Canada relative to the U.S. However, credit risk for Canadian utilities is higher than for U.S. utilities. The offsetting impact of these differences makes U.S. and Canadian utility bond costs very close in terms of absolute cost, currently only 11 bps for A-rated utilities.

Q. On p. 30 of his evidence, Dr. Booth states that "utility yields were consistently lower than generic A yields as the financial crisis started to emerge and remained so until two years or so ago when they merged. Currently the market seems to be valuing similarly rated utility and non-utility debt the same. This is further support for a return to normality in the bond market as the extra "safety" implicit in A rated utility bonds is not valued to the same degree that it was during the financial crisis." Do you agree with Dr. Booth's statement?

A. No. As shown by the Bloomberg fair value bond curves in Figure 5, prior to the global financial crisis, Canadian A-rated utility bond yields typically ran slightly below those of the A-rated corporate bond yields of the same term. Since the yield for corporate bonds has generally been higher than for utility bonds, a merging of corporate bond yields does not signal a return to normalcy, but instead a devaluing of utility bond debt relative to corporate debt. We can see that Utility A-rated bond yields and Corporate A-rated bond yields have been essentially merged since the financial crisis and have not returned to the pre-financial crisis spread that Corporate A-rated debt yielded over Utility A-rated debt.

Figure 5: Canadian 30-yr A-rated Corporate and Utility Bond Yields 2005-2016

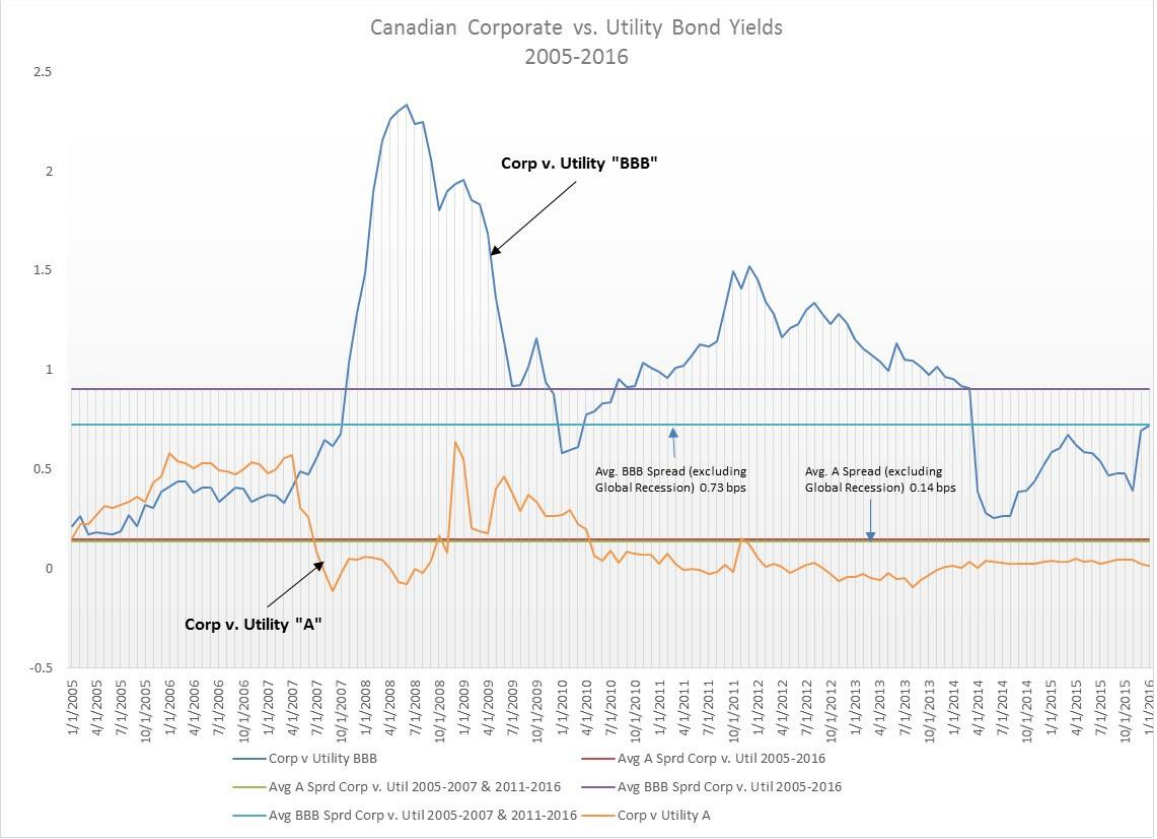


Source: Bloomberg fair value curves

Contrary to Dr. Booth's statement that investors seek the safety of A-rated utility bonds in times of market stress, the A-rated utility bond yields actually show little difference in movement from the A-rated Corporate bond in times of extreme market stress. Note on Figure 6 that, as the difference between BBB corporate bond yields over BBB utility bond yields widens substantially (i.e. the solid blue line rises), the difference between A-rated corporate bond yields over A-rated utility yields moves very little. This indicates to me that, despite conventional wisdom, the value that bond investors place on high-quality utility debt over similarly-rated corporate debt in times of market stress is negligible at best. This may be true for lower quality debt, but I see no material indication that A-rated utility bonds were valued

differently from A-rated corporate debt during the financial crisis. It appears that investors currently find A-rated corporate debt and A-rated utility debt essentially the same, which does not indicate a return to normalcy. We would "normally" expect A-rated corporate debt to trade at higher yields than utility debt, as it did prior to the financial crisis.

Figure 6: Corporate vs. Utility 30-year Bond Spreads



Source: Bloomberg 30-year Corporate and Utility Fair Value Curves

IV. DR. BOOTH'S CAPM ANALYSIS

Q. Please summarize Dr. Booth's CAPM analysis and results.

A. Dr. Booth's simple CAPM is based on a forecasted risk-free rate for 2016 of 2.81 percent, an equity risk premium between 5.0 percent and 6.0 percent, and beta coefficients from 0.45 to 0.55. Dr. Booth then adjusts his CAPM analysis for higher credit spreads (45 basis points) and for the increase in the preferred yield over the A-rated bond (130 basis points). Dr. Booth's "conditional CAPM" estimate ranges from 7.31 percent to 8.36 percent, with an average of 7.83 percent.[11]

A. Prevalence of the CAPM

Q. Dr. Booth states on p. 37, that the CAPM remains the "most important" model used by a company in estimating their cost of equity capital. Do you agree?

A. No, I do not agree in the context of setting a regulated rate of return. Dr. Booth places primary reliance for this statement on a paper published in 2001 by Graham and Harvey. First, the date of the paper (2001) preceded the financial crisis and the prolonged period of unusually low interest rates that has occurred since 2001. I challenge whether the conclusions of this paper could reasonably be extrapolated to the present. Nonetheless, based on my review of the paper, it was written from the perspective of capital budgeting and for establishing discount rates for target investments. While I agree that the CAPM is used for this purpose because it is simple to use for corporate analysts, I see little parallel between establishing a discount rate for capital budgeting purposes and determining the investor required

[11] Evidence of Dr. Laurence D. Booth, at 51.

return for purposes of utility regulation. This article sheds no light on the extent to which the CAPM is used to set the regulatory rate of return in utility rate proceedings.

Q. Dr. Booth states on p. 52 that "the big advantage of the CAPM is that it is difficult to make big mistakes." Do you agree?

A. No. As Dr. Booth acknowledges, it is often necessary to make significant adjustments to CAPM inputs and assumptions to arrive at reasonable results. The problems with the CAPM are illustrated by Dr. Booth's subjective adjustments of roughly 175 bps, the outcome of which still produces the lowest ROE of any investor-owned utility in Canada. The CAPM can and often does generate big mistakes, contrary to Dr. Booth's suggestion that it does not.[12]

Q. Have others expressed concern with the ability of the CAPM to produce reliable cost of equity estimates for low-risk companies, such as utilities?

A. Yes. For example, the British Columbia Utilities Commission ("BCUC") retained a consultant in 2012 to evaluate the various cost of capital methodologies. The report issued by the consultant listed a number of weaknesses with the CAPM when applied to utility regulation, including:

- "the CAPM will provide regulated entities with a reasonable return only if it is implemented accurately, and the analyst must take into account any unique circumstances that may bias the estimates";

[12] Evidence of Dr. Laurence D. Booth at 52, where he states "Consequently, the major area of dispute is the relative risk or beta coefficient, and even here there is not much doubt that utilities are lower risk than the market. Hence the big advantage of the CAPM is that it is difficult to make big mistakes."

- "the model is very sensitive to the estimates of the risk-free rate, beta and MRP"; and

- "because the model was developed as a generic approach to determine the cost of capital for companies, it does not specifically take the regulatory context into account."[13]

The CAPM is known to be unreliable, particularly for low beta firms such as utilities. The BCUC consultant discussed this in its report where it stated:

> Perhaps the most fundamental challenge to the CAPM has been the consistent empirical observation that the model does not explain stock performance well in a statistical sense. For example, low beta stocks tend to have higher average returns than predicted by the CAPM, and high beta stocks have lower average returns – that is, the empirical estimates seem to require a pivot of the SML around beta = 1.0 from the traditional version of the CAPM.[14]

I have observed this CAPM weakness in my own evidence and agree with the BCUC's consultant that this is a fundamental challenge to the CAPM.

Q. Has Dr. Booth commented elsewhere on when the CAPM is best suited for estimating the cost of equity?

A. Yes. The Corporate Finance textbook authored by Dr. Booth and Dr. Cleary explains that the CAPM is best suited for estimating the equity cost for companies with high growth rates and/or low dividends, such as technology companies. The textbook states:

13 The Brattle Group, Survey of Cost of Capital Practices in Canada (May 31, 2012) at pp. 20-27.
14 Ibid at 25.

> The previous section showed that the DCF model can be rearranged to estimate the investors' required return on a firm's common shares. However, we also discussed how the [DCF] model performs poorly when applied to growth stocks, which pay low dividends and/or display high growth rates. In these situations, it makes sense to rely more heavily on risk-based models. The most important risk-based model is the capital asset pricing model…[15]

Q. Do you agree with Dr. Booth's statement on p. 52-53 of his evidence that the DCF model fell out of favor with utility regulators in 1990s due to a structural break in the forecast inflation rate?

A. From my experience, the Gordon Growth form of the DCF model has been and remains the primary model relied upon by U.S. regulators.[16] It is a required submission by the FERC and is its primary model for cost of capital determinations. In the U.S., the CAPM is usually used to corroborate the results of other analyses. The Corporate Finance textbook by Booth and Cleary indicates that the Gordon Growth form of the DCF was specifically designed for use in public utility regulation and is well suited for that purpose. The textbook states:

> What has to be remembered is that Professor Gordon developed this model (the DDM) for use in public utility regulation where the allowed ROEs should be reasonable and we do not get the problem of rapid growth rates.[17]

and

> Although the DDM provides a great deal of insight into factors that affect the valuation of common shares, it is based on several assumptions that are not met by a large number of firms, especially in

15 Laurence D. Booth and W. Sean Cleary, Introduction to Corporate Finance, 1st Edition (2008), at 793.

16 This is supported by the Gordon and Makholm (NERA) paper, *Allowed Return on Equity in Canada and the United States, An Economic, Financial and Institutional Analysis* (February 2008), p. 20, where the authors state: "The most popular method used to determine the ROE among US regulatory commissions is to determine what future stream of common dividends investors expect on a case-by-case basis using discounted cash-flow (DCF) analysis."

17 Laurence Booth and W. Sean Cleary, Introduction to Corporate Finance, 1st Edition (2008), at 785

> Canada. **In particular, it is best suited for companies that (1) pay dividends based on a stable dividend payout history that they want to maintain in the future; and (2) are growing at steady and sustainable rates. As such, the DDM works reasonably well for large corporations in mature industries with stable profits and an established dividend policy. In Canada, the banks and utility companies fit this profile, while in the United States, there are numerous NYSE-listed companies of this nature.** [18]

The DCF model remains an important, if not primary, model for utility cost of capital determinations.

Q. Do academic papers test the validity of the CAPM?

A. There have been numerous studies on the validity of the CAPM. Dr. Booth cites a paper by Levy and Roll under the **Q: Is there any other support for the CAPM?**[19] Based on my reading of the Levy and Roll paper, I find that it is less supportive of the CAPM than Dr. Booth suggests. The authors set out to test the "prevalent belief that the CAPM is inconsistent with the sample parameters."[20] They ask "In light of the evidence, should the CAPM be taken seriously or just a pedagogical tool for finance classes, grossly inconsistent with the empirical evidence?"[21] In addition to the conclusions cited by Dr. Booth, the authors, testing previous studies, ultimately find that their study "does not constitute a proof of the empirical validity of the model, but it shows that the model cannot be rejected, in contrast to the widespread belief in our profession."[22] The authors also note that "While the CAPM can be rejected for very low or high values of the risk free rate, it cannot be rejected for the

18 Ibid, at 269. [Emphasis added.]
19 Ibid, at 40.
20 Levy and Roll, The Market Portfolio May be Mean/Variance Efficient After All, The Society for Financial Studies, January 5, 2010, at 2479.
21 Ibid, at 2465.
22 Ibid, at 2487-88.

wide range of (monthly) interest rate values between 0.3 percent and 1.3 percent,"[23] a range of between 3.65 percent and 16.8 percent, when compounded monthly. Current interest rates are within the range that Levy and Roll suggest the CAPM could be rejected. I, however, place equal weight on the CAPM results, while recognizing the limitations that current market conditions place on that model.

Q. Does Dr. Booth's reliance on the CAPM undermine his ability to provide a fair return estimate?

A. Yes, I believe it does. It is generally well-accepted among cost of capital practitioners and regulatory commissions that multiple methods for estimating the fair rate of return provide the best basis upon which to make a fair determination. Specifically, the OEB when confronted with this issue in its Consultative Cost of Capital Process, said basically as much in the following:

> The Board agrees that the use of multiple tests to directly and indirectly estimate the ERP is a superior approach to informing its judgment than reliance on a single methodology. In particular, the Board is concerned that CAPM, as applied by Dr. Booth, does not adequately capture the inverse relationship between the ERP and the long Canada bond yield. As such, the Board does not accept the recommendation that it place overwhelming weight on a CAPM estimate in the determination of the initial ERP.[24]

Dr. Booth does provide DCF estimates for the broader market "as a whole" for Canada and the U.S., as well as the S&P 500 electric utilities and selected U.S. electric and gas utilities. He does not, however, perform a traditional DCF analysis for a proxy group of companies that were chosen based on their comparability to

[23] Ibid, at 2480.
[24] Ontario Energy Board, EB-2009-0084, *Report of the Board on the Cost of Capital for Ontario's Regulated Utilities* (December 11, 2009) pp. 36-37

Newfoundland Power. Further, it is not evident that Dr. Booth places any weight on these results other than to corroborate his "Conditional CAPM".

B. The Risk Free Rate

Q. Dr. Booth takes exception to your use of a three-year forecast of the 10-year bond yield for use in your analyses. Is it appropriate to use a forecast bond yield for the risk free rate in the CAPM analysis?

A. Dr. Booth and I both base our risk-free rate on forecasted bond yields. The difference is that I have used the three-year forecast, while Dr. Booth has used the 2016 forecast and then adjusted it for higher credit spreads and increasing preferred yield spreads. I have used a three-year forecast primarily to establish a forward-looking bond yield that anticipates changes in the long Canada bond over the next few years, while reflecting the long-term perspective of the utility shareholder. This is the preferred indicator of the risk-free rate, particularly in the face of dynamic and abnormal market conditions. My forecast interest rate of 3.68 percent, based on 2016-2018 forecast data from the Consensus Economics survey, is very near to the RBC forecast that Dr. Booth has included on p. 25 of his evidence of 3.65 percent for Q4 2017; presumably, RBC's interest rate forecast for 2018, had it been reported in that Figure, would be higher still. In summary, my estimate of the risk-free rate of 3.68 percent is reasonable and is actually lower than the risk-free rate that Dr. Booth has used in his "Conditional CAPM."

C. The Market Risk Premium

Q. Dr. Booth has relied on the Fernandez survey of market risk premiums to support his market risk premium estimate of 5.0 to 6.0 percent. Do you take issue with this approach to estimating the market risk premium?

A. The Fernandez survey cited by Dr. Booth is an email survey sent to 22,500 email addresses for which 4,573 reportable responses were received from global financial professionals with respect to the market risk premium for 68 countries. Respondents were asked about the risk free rate and the market risk premium used to calculate the required return on equity. Although the Fernandez survey provided information on the number and range of responses concerning the level of market risk premium for each country, it is not clear from the survey how the respondents derived the market risk premium in their response (e.g., the source for their information), nor does the survey establish for what use the respondents applied the market risk premium estimate. For Canada, the survey received 81 responses with a mean response of 5.9 percent, with a maximum of 12 percent and a minimum of 4 percent. The standard deviation of the responses was 1.3 percent, indicating that the majority of responses was between 4.6 percent and 7.2 percent. In my view, the wide range of responses illustrates both the importance of alternate measures of the market risk premium and the general level of uncertainty regarding future returns.

It is also important to consider the current market context. I have incorporated a forward-looking analysis that reflects the inverse relationship between the market risk premium and the current level of interest rates weighted equally with a historical derivation. My analyses suggest that the current market risk premium is above my

estimate of 7.6 percent, as indicated by my forward-looking MRP of 9.8 percent for Canada and 8.1 percent for the U.S.

In a further test of these results in British Columbia using a more conservative multi-stage DCF approach to derive the forward market equity risk premium, the forward-looking market risk premium is lowered to 5.39 percent and 3.96 percent for Canada and the U.S., respectively. This, however, yields an anomalous result when indications are that the market risk premium is higher than the historical average and not lower. My regression test of the market risk premium suggests that the market risk premium is much higher. Using my 30-year Canadian bond yield forecast of 3.68 percent, the regression formula results in a market risk premium of 10.09 percent. I, therefore, would not place any confidence in a market risk premium even lower than the long-term historical risk premium. Given the inverse relationship between interest rates and the market risk premium, one would expect a higher than historic risk premium in the current environment. Further, if confidence is placed in the multi-stage DCF approach, the preferred method is to apply it directly to the utility groups, as was done in my primary analysis.[25]

Q. Have others also expressed concerns with the use of investor surveys to estimate the equity risk premium?

A. Yes. For example, Finance Professor Aswath Damodoran, who has published extensively on the question of how to estimate the equity risk premium, wrote in

[25] Response to Undertaking in FortisBC Energy Inc., Common Equity Component and Return on Equity for 2016, BCUC, March 11, 2016.

March 2013[26] about his concerns with using investor surveys to estimate the equity risk premium as follows:

> While survey premiums have become more accessible, very few practitioners seem to be inclined to use the numbers from these surveys in computations and there are several reasons for this reluctance:
>
> 1. Survey risk premiums are responsive to recent stock price movements, with survey numbers generally increasing after bullish periods and decreasing after market declines…;
> 2. Surveys premiums are sensitive not only to whom the question is directed at but how the question is asked. For example, asking the question, "What do you think stocks will do next year?" generates different numbers than asking, "What should the risk premium be for investing in stocks?";
> 3. In keeping with other surveys that show differences across sub-groups, the premium seems to vary depending on who gets surveyed…; and
> 4. Studies that have looked at the efficacy of survey premiums indicate that if they have any predictive power, it is in the wrong direction…

Dr. Damodoran ultimately concludes that "it is also likely that these survey premiums will be more reflections of the recent past than good forecasts of the future."[27]

[26] Aswath Damodoran, *Equity Risk Premiums (ERP): Determinants, Estimation, and Implications – The 2013 Edition*, Updated March 2013, at 19-20.

[27] *Ibid.*, at 20.

D. Beta

Q. To what do you attribute the differences between your beta estimates of 0.64 for the Canadian proxy group, 0.73 for the U.S. proxy group and 0.73 for the North American proxy group, and Dr. Booth's range of beta estimates from 0.45 to 0.55?

A. The difference is primarily due to Dr. Booth's dismissal of the widely-accepted adjustment methodology employed by most providers of beta for financial analysis, which is to adjust utility betas toward the market average of 1.0.[28] Dr. Booth argues that utility betas regress toward their grand mean, which he estimates to be 0.50, relying on the work of Gombola and Kahl (1990) for his conclusions. Gombola and Kahl found that utility betas required adjustment, such as is performed by Value Line, Merrill Lynch, Bloomberg and others, but that the adjustment should not be toward the market mean of 1.0, but instead to the grand mean of the utility beta.

Q. Are Gombola and Kahl's findings that utility betas revert to their grand mean and not toward the market mean of 1.0 the prevailing wisdom on the adjustments required for utility betas?

A. No. By far, the prevailing standard around beta adjustment is to adjust the raw beta toward the market mean of 1.0. This practice recognizes the statistical tendency of

[28] Commonly referred to as the "Blume Adjustment" for papers written by Marshall Blume documenting evidence of autoregressive properties of beta towards the market average of 1.0. See Marshall E. Blume, On the Assessment of Risk, The Journal of Finance, Vol. XXVI, No. 1 (March 1971) and Marshall E. Blume, Betas And Their Regression Tendencies, The Journal of Finance, Vol. XXX, No. 3 (June 1975), where Blume found that there was strong evidence that beta regressed toward the market mean, and that tendency was strongest in the case of the lowest risk portfolios. Note Dr. Booth refers to his adjustment as the "Blume adjustment," but Dr. Booth does not follow the Blume methodology of adjusting beta towards 1.0, but instead adjusts to the "grand mean of utility betas".

high estimated betas to have positive error terms (i.e., to overestimate the true beta), and low estimated betas to have negative error terms (i.e., to underestimate the true beta), whereby an adjustment to unity is required to moderate the error terms.[29] In addition, adjustment toward the market mean of 1.0 recognizes that beta tends to underestimate the risk of utilities due to the inability to recognize interest rate risk in the calculation of beta for interest-rate sensitive firms. Conventional betas do not capture the extra sensitivity to interest rates.[30] The negatively biased error terms for low beta firms, and the additional risk inherent in interest rate sensitive firms, are two factors that are not reflected in beta adjustment toward the grand mean of utility betas, and as a result, Dr. Booth's method understates the beta estimate.

I agree with the adjustment methodology employed by the premier beta providers (i.e., Value Line, Bloomberg, Merrill Lynch) that the appropriate beta adjustment (especially for utility stocks) is toward the market mean of 1.0. Further, I am not aware of a single U.S. state or federal regulatory jurisdiction that takes exception to the use of this adjustment methodology. I have only encountered this discussion around beta adjustment methodology in Canadian regulatory proceedings in which Dr. Booth is a witness.

Q. What is your experience in Canada?

A. I am aware that Canadian regulators have considered the issue of beta adjustments in a broad number of cases where CAPM evidence has been presented. Commissions do not always articulate their judgments regarding the specific adjustments they have

29 Roger A. Morin, Ph. D., New Regulatory Finance, Public Utilities Reports, Inc., (2006) at 74.
30 Ibid.

accepted, but I am not aware of any Commission that has relied upon "raw" betas. In my experience, the Value Line and Bloomberg methodologies are widely accepted and utilized by financial analysts, investors, corporations, and broadly accepted by U.S. regulatory commissions. The Brattle Group summarizes this widely adopted methodology in its report for the BCUC:

> Beta estimates are provided by many data services for Canadian, American and other traded companies. The most common methodology to estimate betas is to use the most recent five years of weekly or monthly return data. These betas may then be adjusted towards one as adjustment for sampling reversion that was first identified by Professor Marshall Blume (1971, 1975). (The Brattle Group, Survey of Cost of Capital Practices in Canada, Prepared for the British Columbia utilities Commission, May 31, 2012, pp 15-28)

Concentric submitted a full cost of capital analysis in the consultation on Cost of Capital conducted by the Ontario Energy Board in 2009 that led to a reset of the ROE and the current formula for Ontario's gas and electric distributors and transmitters, which was recently reaffirmed by the OEB. Concentric's CAPM analysis included the standard Blume adjusted betas from Bloomberg and Value Line, just as I have utilized in this proceeding. In its decision, the OEB focused on the resulting equity risk premium considering the evidence of several experts, including Concentric and Dr. Booth. The OEB ultimately concluded that an equity risk premium of 550 basis points (including 50 basis points for transactional costs) was appropriate. This resulted in a reset of the base generic ROE to 4.25 percent (risk free rate) plus 550 basis points (ERP including float) equal to 9.75 percent. Concentric's CAPM analyses for proxy groups of U.S. and Canadian gas and electric utilities resulted in a mean equity risk premium of 4.86 percent. The implied equity risk premium using Concentric's DCF analysis was 6.92 percent. The OEB

determined 550 basis points was the appropriate ERP, 64 basis points above the mean of Concentric's CAPM equity risk premium estimates, and the Board took no issue with Concentric's adjusted betas.

Q. Dr. Booth cites a Fernandez survey on market returns. Does Fernandez also address the issue of Betas?

A. Yes. Dr. Booth has relied on the Fernandez survey for his market risk premium estimate, but does not mention a similar survey published by Dr. Fernandez on the use of betas.[31] The Fernandez beta survey is also conducted via email, in this case to "about 8,000 finance and economic professors", with email addresses "obtained from previous correspondence, papers, and webs of the universities." In his email, Dr. Fernandez asks what "we, professors, use to calculate the required return to equity", and "how the number was justified." His original survey was conducted in 2009, when he received 2,510 responses from professors in 65 countries, of which 1,791 used betas (22 percent of the sampled group). Fernandez has since reported updates in 2010, 2013, 2014 and the latest in 2015. His approach is simple, he asks two questions, and requests any additional comments:

1. I use betas: YES___ NO___
2. I justify the betas I use:
   - I do not justify the betas _____
   - Reference to books or articles _____ (which ones)
   - Regressions _____
   - Financial webs or Internet _____
   - Other _____

   Comments _____

[31] "*Betas used by Professors: a survey with 2,500 answers*", November 21, 2015.

Dr. Fernandez reaches a variety of conclusions from his survey and related work on this topic. He finds:

- "97.3% of the professors that justify the betas use regressions, webs, databases, textbooks or papers (the chapter specifies which ones), although many of them state that calculated betas 'are poorly measured and have many problems.'"
- "Only 0.9% of the professors justify the beta using exclusively personal judgment (named qualitative, common sense, intuitive, and logical magnitude betas by different professors)."
- "Most of the professors acknowledge that there are problems estimating the two ingredients of the (CAPM) formula (the beta and the market risk premium), but, nevertheless, most of them continue using it."

Focusing on the issue of problems measuring beta, Fernandez summarizes:

> The problems of the betas calculated with historical data are well known:
>
> 1. They change considerably from one day to the next.
> 2. They depend very much on which stock index is used as the market reference.
> 3. They depend very much on the historical period (5 years, 3 years…) used.
> 4. They depend on what returns (monthly, yearly…) are used to calculate them.
> 5. Very often we do not know if the beta of one company is lower or higher than the beta of another.
> 6. Calculated betas have little correlation with stock returns.
> 7. beta = 1 has a higher correlation with stock returns than calculated betas for many companies
> 8. The correlation coefficients of the regressions used to calculate the betas are very small.
> 9. The relative magnitude of betas often makes very little sense: companies with high risk often have lower calculated betas than companies with lower risk.
>
> For these nine reasons we can say that:
>
> - the beta calculated with historical data is not a good approximation to the company's beta, or

- the beta of a company (a common figure for all investors) does not exist.

We argue, as many professors mention, that historical betas (calculated from historical data) are useless to calculate the required return to equity, to rank portfolios with respect to systematic risk, and to estimate the expected return of companies.

A practical consequence: using a historical beta to value a stock, without analyzing the company's and the industry's future prospects, is very risky and, many times, a source of huge errors.

Based on Dr. Fernandez's conclusions, the implications for estimating the ROE for a utility using the CAPM are as follows:

1) The use of judgment in determining the appropriate beta is clearly an outlier. The vast majority of those surveyed used regression analysis, web sources and databases.

2) Historic betas alone are poor measures of a stock's valuation.

3) Based on correlations of the annual stock returns (1989-2008) of the Dow Jones companies measured against the S&P 500 Fernandez finds: "Beta = 1.0 works better than calculated betas. But adjusted betas (0.67 calculated beta + 0.33) have higher correlation than calculated betas. But adjusted betas have lower correlation than beta = 1."

While I have not relied on either Fernandez survey (market risk premium or beta) for my recommendations, these conclusions certainly suggest care must be exercised in the use of the CAPM. Fernandez opines on the inability to find a common beta for a given company for all investors:

> It would imply that the CAPM does not work. It may be because the required return is affected by other factors, besides the co-variance of the company's return with the market return, the risk-free rate and the market risk premium; it also may be because, due to the heterogeneity of investors, it does not make sense talking about a "market portfolio"; it also may be because the distribution of expected returns changes with time (and it can change in a different way for different investors)."

We need only look to Dr. Booth's table of Canadian Regulated betas on p. 9 of Appendix C of his evidence, to see the dispersion of beta across multiple data providers for a single company. At a minimum, historic betas must be adjusted to reflect actual returns and stock valuations in the marketplace. Fernandez judges beta = 1.0 for the broad market.

Q. Have you tested the reasonableness of your approach?

A. The standard Blume adjustment for utilities weights the regression (or "raw") beta for the utility by 2/3 and beta =1.0 by 1/3, which is standard practice, and more consistent with both broad industry practice and the academic literature than Dr. Booth's judgmental approach.

In my response to Request for Information CA-NP-094, I showed in comparing returns generated by raw betas vs. betas adjusted toward the market mean of 1.0, that utility betas adjusted towards 1.0 using the Blume Methodology still understated utility equity returns, but came closer than using raw betas. These data suggest that the true beta is actually closer to the market mean than a raw historical computation, providing evidentiary support that an upward adjustment to beta toward the market mean of 1.0 is necessary and appropriate.

E. Conditional CAPM

Q. Dr. Booth performs his simple CAPM calculation and then adjusts his results for increased credit spreads and the U.S. bond buying program 'Operation Twist' to arrive at his Conditional CAPM. Do you take issue with Dr. Booth's calculation of these adjustments beginning on p. 45 of his evidence?

A. Although I agree with Dr. Booth that long Canada bond yields are being influenced by monetary policy, and that the CAPM results are being suppressed by abnormally low interest rates, I do not agree with how Dr. Booth has adjusted for the low-interest rate environment. With respect to his credit spread adjustment, Dr. Booth has indicated that an adjustment for the increase in credit spreads is necessary for the difference between today's credit spread of 191 bps and what he considers normal (i.e., 100 bps). Dr. Booth bases his adjustment on 50 percent of the change in bond yields, which he supports with a 2009 Bank of Canada report that "disentangled" the liquidity component of credit spreads from the default risk component and finds the liquidity portion to be 63 percent of the credit spread in 2009.[32] This would indicate that the default portion at the time was approximately 37 percent. Although Dr. Booth moderates this effect and calls it 50/50, I see no basis upon which to accept that the findings from the 2009 Bank of Canada report are applicable to current market conditions, as the components of the credit spread during the global financial crisis would surely be different than they are today. For example, an article on this topic submitted to the Journal of Finance by Longstaff, Neis, and Mithal (2004) concluded, "We find that the nondefault component **is time varying and mean**

[32] Evidence of Laurence D. Booth, at 44-45.

reverts rapidly. The nondefault component of spreads is strongly related to measures of bond-specific illiquidity such as the bid-ask spread and the outstanding principal amount."[33] Accordingly, Dr. Booth's judgmental estimate of 50 percent may or may not be appropriate; he offers no current evidence to support this percentage, and the likelihood is that in current market conditions the default component would be greater than 50 percent, necessitating a higher adjustment.

Q. Do you also take issue with Dr. Booth's 'Operation Twist' adjustment on p. 51 of his evidence?

A. Yes. From what I can tell, Dr. Booth's 'Operation Twist' adjustment attempts to rectify the impact on government bond yields of the U.S. bond buying program, which he now broadens to include actions of other central banks, even though the U.S. bond buying program was terminated in October 2014. The actual 'Operation Twist' was the name given to the U.S. Federal Reserve's monetary policy involving the simultaneous selling of short-term bonds and buying of long-term bonds designed to put downward pressure on long-term bond yields. Dr. Booth provides two analyses to quantify the extent to which the long Canada bond yield has been influenced by government economic policy. First, on pages 45-46 of his evidence, Dr. Booth develops a relatively straight forward regression model (shown in Appendix B, Schedule 6) indicating that the government bond yield, based on 2014 data, should be approximately 5.25 percent, or 244 bps higher than his forecast long Canada bond yield of 2.81 percent.

[33] Longstaff, Neis, and Mithal, *Corporate Yield Spreads: Default Risk or Liquidity? New Evidence from the Credit-Default Swap Market*, An Article Submitted to The Journal of Finance, Manuscript 1236 (2004) at 33 [emphasis added].

Q. Please elaborate on the second analysis Dr. Booth performed to quantify his 'Operation Twist' adjustment.

A. Dr. Booth also supports his 'Operation Twist' adjustment by a comparison of preferred equity yields to corporate A bond yields under normal conditions, and quantifies his adjustment by determining the extent to which the differential between the preferred yield and the corporate A yield has widened under recent market conditions. Dr. Booth indicates on p. 48 of his evidence that he considers 2004 a good starting point, since in most respects it was "normal." In 2004, the preferred yield was 5.48 percent, while the A bond was 6.34 percent, for a difference of 86 bps. As of February 29, 2016, the preferred yield increased by 52 bps to 6.00 percent, while the Corporate A bond yield fell by 231 bps from 6.34 percent to 4.03 percent, widening the difference from the normal level of spreads by the sum of the changes (i.e., 52 bps + 231 bps or in total 283 bps). In my view, the 'Operation Twist' adjustment should be 283 bps. This is supported by Dr. Booth's regression analysis indicating that government bond yields are 250 bps too low.

Even though Dr. Booth's results indicate that an adjustment should be made of 250 – 283 bps, he allows only a 130 bps for his adjustment. Even if one were to accept that Dr. Booth's adjustment through May 2013 of 80 bps (as stated on p. 49 of his evidence in this proceeding) is appropriate, the data suggest that the spread has widened an additional 165 bps (i.e., the difference between the preferred spread and Corporate A spread was 66 bps on May 31, 2013, and the spread widened to 231 bps as of February 29, 2016), so that the 'Operation Twist' adjustment should be at least

80 bps + 165 bps or 245 bps. Based on Dr. Booth's calculations, I find his adjustment for 'Operation Twist' to be understated.

V. DR. BOOTH'S DCF ANALYSIS

A. Sustainable Growth Rates

Q. On p. 12 of Appendix D to Dr. Booth's evidence, he calculates a DCF estimate for a U.S. proxy group of "low-risk" electric and gas utilities using sustainable growth rates. Do you agree that sustainable growth rates appropriately capture the expected growth of a regulated utility?

A. Not as applied by Dr. Booth. The full form of the "sustainable growth" model is premised on the proposition that a firm's growth is a function of its expected earnings, and the extent to which it retains earnings to invest in the enterprise. In the sustainable growth formula, this is commonly referred to as the product of "b x r", where "b" is the retention ratio, or the portion of net income not paid in dividends, and "r" is the expected ROE on the portion of net income that is retained within the Company as a means for future growth. In the fullest form of the sustainable growth formula, new equity issuances, or what are commonly known as externally generated funds, are also considered. This is shown as the product of "s x v", where "s" represents the growth in shares outstanding, and "v" is that portion of the market/book ratio that exceeds unity. This methodology is recognized as a common approach to calculating the sustainable growth rate. Dr. Booth has relied upon the simplest form of the sustainable growth model, projecting growth only as a function of internally generated funds. The "b x r" method fails to account for future equity issuances, and no sustainable growth formula considers debt leverage as a source of future growth for an entity. Failure to consider the potential for debt and

equity issuances as a source of future growth understates the firm's growth potential under this model.

Q. Has the FERC recently abandoned the use of sustainable growth rates in its ROE methodology?

A. Yes. In Opinion No. 531, the FERC moved away from its use of sustainable growth rates in its DCF methodology to be applied in public utility rate cases.[34] In summary, the FERC adopted the same two-step DCF methodology it has employed in gas and oil pipeline rate proceedings since the mid-1990s, which relies on a combination of analyst growth rates and GDP growth estimates, just as I have used in my multi-stage DCF analysis.

Q. Do you have other concerns with the reasonableness of Dr. Booth's sustainable growth rate calculation?

A. Yes, I do. Since the "r" in the "b x r" approach refers to the ROE, Dr. Booth has effectively pre-supposed analyst ROE and payout ratio projections for the companies in his analysis. Thus, by using this sustainable growth measure, Dr. Booth has assumed the reasonableness of analysts' ROE projections, while contesting the same analysts' projections of company earnings growth rates. As shown in the table at the bottom of p. 14 of Dr. Booth's Appendix D, the mean and median ROE projections for the electric utility companies in his "low risk" proxy group are roughly 8.1 and 8.9 percent, respectively, which while very low are significantly higher than the mean and median DCF results he calculates using the

[34] See FERC Order 531 at http://www.ferc.gov/whats-new/comm-meet/2014/061914/e-7.pdf

simple form of the sustainable growth rate of 6.27 percent and 6.59 percent, respectively.

Moreover, in response to Request for Information NP-CA-075 (1st Revision), Dr. Booth provided his sustainable growth rate calculation in electronic format. Dr. Booth indicates that he pulled data on February 1, 2016 from Yahoo! Finance, which reports data from S&P Capital IQ. In reviewing his sustainable growth rate calculations, I have several concerns. First, Dr. Booth has calculated the retention ratio for each company using spot data for earnings per share and dividends per share. Consequently, his retention ratio for several companies diverges substantially from what would be considered an average long-term retention ratio for the regulated electric and gas utility industry of approximately 30-40 percent. For example, Dr. Booth uses retention ratios of 5.0 percent for Duke Energy and 3.0 percent for Northwest Natural Gas. Second, Dr. Booth multiplies the retention ratio by the most recent reported ROE for each company rather than the long-term projected ROE. Once again, the reported ROE in the most recent period may deviate substantially from the long-term average for either the individual company or the industry as a whole. Based on these questionable input assumptions, Dr. Booth derives ROE estimates as low as 4.68 percent for Duke Energy, 5.08 percent for Great Plains, 3.79 percent for Northwest Natural Gas and 4.66 percent for Piedmont Natural Gas. Such returns clearly do not reflect the risk associated with owning common equity and are not comparable to allowed ROEs for other regulated electric and natural gas utility companies in Canada or the U.S. Therefore, these returns do not satisfy the Fair Return Standard and should be rejected. Yet, Dr. Booth uses this

DCF analysis to support his view that his CAPM results are overstated by comparison to the results of his DCF model using sustainable growth rates.

Q. In Appendix D of his evidence, Dr. Booth indicates that investors also use sustainable growth rates and dividend growth rates in the DCF analysis because they are less variable than earnings growth rates, and do suffer from concerns about analyst bias. What is your response?

A. While I do not rely upon sustainable growth rates or dividend growth rates in the Constant Growth DCF model, I have developed a DCF analysis using sustainable growth rates and dividend growth rates, as well as earnings growth rates, for the companies my U.S. electric utility proxy group. I could not perform this same analysis for the Canadian and North American proxy groups because Value Line, which is the source of dividend growth rates and the components used to calculate sustainable growth, only has limited coverage of Canadian utility companies. As shown in Rebuttal Exhibit JMC-1, my Constant Growth DCF analysis using an average of sustainable growth, dividend growth and earnings growth produces a DCF estimate of 9.24 percent for the U.S. electric utility proxy group using data as of March 1, 2016. These are significantly higher than Dr. Booth's results. Even using only a sustainable growth rate estimate based on forward-looking data from Value Line produces a Constant Growth DCF result of 8.23 percent. By comparison, as shown in Rebuttal Exhibit JMC-2, using only earnings growth rates in the Constant Growth DCF model, I derive results of 9.65 percent for the U.S. proxy group and 9.42 percent for the North American proxy group using data as of March 1, 2016.

B. Analyst Bias

Q. Do you share Dr. Booth's concern that analysts' EPS growth rates are biased upwards?

A. No. Industry analysts are experts on the companies they follow; they understand the risks attendant to investing in the various utilities within their coverage universe; they receive earnings guidance from the utilities themselves; and they have the opportunity to speak with utility management.

Further, given the consensus that utility operating income is generally stable, analysts have a much greater ability to reliably forecast annual earnings growth for utilities. Equity analysts do not have an incentive to provide overly optimistic research reports because much of this reporting is utilized by institutional clients such as pension funds or mutual funds, and credibility is very important in maintaining that business relationship.

Finally, clients expect forecasting accuracy in the reports of equity analysts. If compensation were based on the revenue an analyst generates for his employer, then that metric would decline for an analyst whose reports were consistently incorrect. The Wall Street Journal publishes an annual ranking of the best equity analysts in each industry. The rankings are largely based on the accuracy of the analysts' earnings forecasts and their buy and sell recommendations. Inclusion on this prestigious list is very important for both the analyst and the firm for which he or she works. There is ample evidence to support the conclusion that earnings estimates

for utilities are reasonably accurate, and accordingly are relied upon by utility investors.

Q. Are you aware of other professional investment services that share your view regarding whether analyst's growth rates are overly optimistic and upwardly biased?

A. Yes, I am. In my response to Request for Information PUB-NP-092, I cited an article from Zacks, a reputable source of consensus growth rate forecasts, which states that brokerage analysts are "expected to be objective experts for the industries they cover."[35] With regard to guidance provided by companies to brokerage analysts, Zacks writes:

> It is not in the best interest of corporate executives to share the most optimistic projections with brokerage analysts, however. A large percentage of executive compensation comes from company stock and stock option plans. Executives realize that if their company reports earnings that are below analysts' forecasts, almost without exception, the stock price will tumble. This in turn costs them money. Therefore, it is more advantageous for executives to provide brokerage analysts with conservative earnings estimates.[36]

With respect to analyst's incentive to provide overly optimistic earnings forecasts, Zacks observes:

> Clients will only act on a brokerage analyst's recommendation if they think the recommendation will help them make money. The more money a firm's clients make from a particular analyst's recommendations, the more valuable the analyst is to the firm. Since the analysts issue far more "buy" recommendations than "sell" recommendations, they want to avoid making earnings forecasts that are overly optimistic. The incentive for issuing conservative earnings

35 Source: http://www.zacks.com/help/zrank-guide.php?p=3
36 Ibid.

> estimates is that the company has a better chance of reporting earnings that exceed forecasts. In turns, clients will be happy to see the stock's price rise. Conversely, there is no incentive to issue an earnings forecast that is overly optimistic.[37]

Finally, in terms of the issue of reported earnings vs. forecasted earnings, Zacks observes:

> Over 10 years ago, only about 50% of companies met or exceeded earnings estimates every quarter. Now that number has moved to 80% as corporate executives and brokerage analysts have wised up to the importance of creating conservative earnings estimates.[38]

Q. Have you developed an analysis that reasonably addresses concerns over analyst bias?

A. Yes. Although I see no reason to believe analyst bias exists in the analyst growth rate estimates I have used, I have provided a multi-stage DCF analysis which mitigates the potential for analyst bias and concerns about whether the analyst growth rate could be sustained in perpetuity. According to Dr. Booth's and Dr. Cleary's Corporate Finance text, use of the two-stage DCF model mitigates concerns about analyst bias. The textbook states:

> Finally, an important source of information regarding company growth, particularly for the near term, can be found in analyst estimates. Investors are often especially interested in "consensus" estimates, because market values reflect these estimates. However, a word of caution is in order: analysts have been shown to be biased—that is, they tend to be overly optimistic—in part because their major source of information is frequently the company itself. Research by Easton and Sommers has put the "optimism" bias in analysts' growth forecasts at an average of 2.84 percent. **As a result, analyst**

[37] Ibid.
[38] Ibid.

forecasts tend to be used with the two-stage growth model (discussed in the next section) to mitigate this optimism.[39]

My multi-stage DCF model uses analyst growth rates for the first 5 years of the model. The remaining years reflect GDP growth or the transition to GDP growth. I have relied on the multi-stage DCF results in combination with the constant growth DCF and CAPM results in reaching my ROE estimate for Newfoundland Power.

Q. On p. 17 of Appendix D to his evidence, Dr. Booth adjusts forecasted EPS growth rates for electric and gas utilities downward by 32 percent based on his contention that EPS growth rates in the U.S. were overstated by an average of 32 percent from 2011-2014. Do you agree with Dr. Booth's adjustment?

A. No, I do not. Dr. Booth's adjustment is based on Schedule 18 to Appendix D, which compares the projected earnings growth rate for the S&P 500 to the growth rate actually achieved in each year from 2011-2014. In response to Request for Information NP-CA-081, Dr. Booth indicates that the projected earnings growth rates for the S&P 500 in the chart from RBC appear to be for a period of at least five years, whereas the actual earnings growth rate are for that particular year. I do not agree that it is appropriate to compare five-year forecasted earnings growth rates with one-year actual earnings growth rates, especially when the selected time period from 2011-2014 occurred when the recovery from the Great Recession in the U.S. was much slower and more sluggish than anyone anticipated. In addition to these concerns, Dr. Booth has provided no basis or justification for reducing the forecasted earnings growth rates of gas and electric utilities by 32 percent. This is

[39] Laurence D. Booth and W. Sean Cleary, Corporate Finance, 3rd Edition (2013), at 260. [Emphasis added.]

surprising in light of his statement on p. 86 of his evidence that "the costs and revenues from utility operations are stable so the underlying uncertainty in operating income is very low" and his belief that utility risk is very low as measured by beta. In summary, Dr. Booth has provided no support for his decision to reduce forecasted earnings growth rates for electric and gas utilities by 32 percent due to alleged analyst bias.

VI. DR. BOOTH'S AND DR. CLEARY'S RISK ANALYSIS

Q. Does either Dr. Booth or Dr. Cleary assert that Newfoundland Power's risk has decreased since the 2012 GRA?

A. No, they do not. Dr. Booth states: "In my judgment there has been no material change in NP's business risk since 2012 and that any rate shock from higher electricity costs can be dealt with should they materialise."[40] Similarly, Dr. Cleary states: "NP continues to possess low business risk (which is consistent with the views of the debt rating agencies), unless compelling and material evidence demonstrates that NP's operating or regulatory environment has changed materially since 2013, or as far back as 2003 for that matter. My analysis below leads me to conclude that such material changes have not taken place."[41]

40 Evidence of Dr. Laurence D. Booth, at 84.
41 Evidence of Dr. Sean Cleary, at 17.

Q. If both Dr. Booth and Dr. Cleary believe that Newfoundland Power's business risk has not changed since the 2012 GRA, why are they recommending a reduction in the Company's common equity ratio from 45 percent to 40 percent?

A. Neither Dr. Booth nor Dr. Cleary offer any specific reasons that Newfoundland Power's common equity ratio should be reduced other than by reference to what has been granted to other Canadian utilities in other jurisdictions. Dr. Booth and Dr. Cleary have not presented any evidence that Newfoundland Power has lower business risk than these other utilities, nor have they challenged the Board's long-standing view that Newfoundland Power is an average risk utility. Given these circumstances, if there has been no change in business risk for Newfoundland Power since the 2012 GRA, it is not clear why Dr. Booth or Dr. Cleary believes the Board should reduce the Company's common equity ratio from 45 percent to 40 percent. Further, the Board has previously rejected Dr. Booth's proposal on more than one occasion to either order Newfoundland Power to issue preferred shares or to impute 5 percent of the Company's capital structure as preferred shares at the preferred cost rate.[42]

Q. How does Dr. Booth support his assertion that Newfoundland Power has very low business risk?

A. Dr. Booth contends that because Newfoundland Power has consistently earned its allowed ROE in most years since 1990, this demonstrates that Newfoundland Power has very low business risk.[43] Dr. Booth states: "it is not risk when you only earn more than the risk free rate, regardless of whether or not there is any variability in

42 See, for example, Order No. P.U. 13(2013), at 13 and 16-17.
43 Evidence of Dr. Laurence D. Booth, at 78.

that return. In other words, if someone guarantees that you will always earn more than the long Canada bond yield, then that cannot be riskier than the long Canada bond!"[44]

Q. Do you agree with Dr. Booth that Newfoundland Power's ability to consistently earn its allowed ROE is evidence of the Company's low business risk going forward?

A. No, I do not. First, as Dr. Booth is aware, under the regulatory compact, a regulated utility has an opportunity to earn its allowed ROE, not a guarantee. Second, the fact that Newfoundland Power has historically been able to earn its allowed ROE in most years through efficient and economical management does not tell us anything about the future. Lastly, based on his evidence, it appears that Dr. Booth is suggesting that if a utility earns more than the risk free rate, then variability in earnings does not matter.[45] This appears to contradict Dr. Cleary's attempt to quantify the business risk of Newfoundland Power by assessing the variation in Earnings Before Interest and Taxes.

Q. On p. 80 of his evidence, Dr. Booth argues that significantly higher electricity prices could happen, but to affect Newfoundland Power they have to cause higher costs to its remaining customers, similar to the death spiral that has occurred with the TransCanada mainline. What is your response?

A. Dr. Booth fails to recognize the concern shared by Moody's and DBRS that higher electricity supply costs as a result of the Muskrat Falls development is a risk for

44 Ibid, at 79.
45 Evidence of Dr. Laurence D. Booth, at 79

Newfoundland Power if the Board decides to disallow or defer other prudently-incurred costs or to reduce the Company's cost of capital in order to offset the higher supply costs. Even Dr. Booth states that one way for the Board to deal with the risk of higher supply costs is to reduce the common equity ratio of Newfoundland Power, which is exactly the type of risk that concerns the credit rating agencies. Further, under the Fair Return Standard, the cost of equity must be set without regard to its impact on rates, let alone to mitigate for future rate increases.

Q. On p. 91 of his evidence, Dr. Booth argues that Canadian corporate law imposes a fiduciary responsibility on directors to shareholders and not to customers. Therefore, Dr. Booth argues that utilities have an incentive to ask for more equity and less debt in the capital structure than is necessary given the business risk of the utility. Do you agree?

A. While I agree that the Board of Directors has a fiduciary obligation to maximize shareholder value, Newfoundland Power is a regulated utility under the jurisdiction of the Board. As such, the Board deems the capital structure of Newfoundland Power based on an assessment of the Company's business risk. I see no reason for Dr. Booth's concern about what incentives the Company's Board of Directors might have to shareholders because the customers of Newfoundland Power are protected against the Company earning monopoly profits through the rate regulation of Newfoundland Power by the Board.

Q. On p. 94 of his evidence, Dr. Booth states that U.S. utilities usually need higher common equity and higher allowed ROEs to offset the fact they operate in a riskier environment than do Canadian utilities. Do you agree?

A. No, I do not. Dr. Booth disregards the September 2013 Moody's report (cited on page 26 of Appendix A to my Report) which found that the U.S. regulatory environment is more credit supportive than previously believed, which led to Moody's to upgrade the rating for most U.S. utilities in January 2014 by one notch to reflect their revised view that U.S. regulation has generally provided regulated utilities a reasonable opportunity to recover costs and earn returns. Dr. Booth has provided no evidence or documentation to support his assertion that U.S. utilities operate in a riskier environment. As shown in Figure 10 of Appendix A to my Report, the regulatory environment in the U.S. is generally ranked higher than in Canada, based on information provided in a DBRS report.

Q. Please summarize Dr. Booth's testimony regarding the use of financial metrics to assess risk.

A. Dr. Booth states:

> In terms of its financial metrics, I am extremely reluctant to benchmark my recommendations against guidelines issued by the rating agencies, such as Moody's for two reasons. First, DBRS has long maintained the exact same "A" rating on NP during both strong and weak economic conditions in Newfoundland. Second, the guidelines are heavily based on the degree of regulatory protection, where 50% of the weight applied by Moody's is explicitly for this and not the financial metrics. Consequently, the metrics are not the most important issue.[46]

[46] Evidence of Dr. Laurence D. Booth, at 98.

Q. What is your response?

A. Dr. Booth's position directly contradicts the analysis presented by Dr. Cleary on pages 31-32 of his evidence where he compares the credit metrics of Newfoundland Power to other Canadian electric and gas utilities in an attempt to quantify the Company's relative risk. While I believe that credit metrics are important in terms of evaluating financial risk, I agree with Dr. Booth that rating agencies place more somewhat weight on cost recovery and regulatory protection measures than on financial metrics.

Q. On p. 94 of his evidence, Dr. Booth incorrectly states that FortisBC Electric has lower credit rating than NP on 8.3% ROE and 40% common equity. What is the current allowed ROE for FortisBC Electric?

A. FortisBC Electric has an allowed ROE of 9.15 percent on 40 percent common equity.

Q. On p. 51 of his evidence, Dr. Booth states that "allowed ROEs in both Alberta and Québec have been lowered since 2012." Have ROEs in Québec been lowered?

A. No. Gaz Métro's ROE has not changed since 2012 and remains at 8.90 percent on 38.5 percent common equity; Gazifere's ROE is 9.10 percent on 40 percent equity. The only energy distributor that I am aware of whose ROE has changed in Québec since 2012 is the provincially-owned Hydro-Québec Distribution ("HQD"). Its authorized ROE was actually increased in its last rate proceeding from 6.19 percent to 8.20 percent in 2014, and HQD has been deemed 35 percent equity since 2004.

Q. On p. 23 of his evidence, Dr. Cleary contends that small size is not a new risk for Newfoundland Power. Do you agree?

A. While I agree that small size is not a new risk for Newfoundland Power, it does remain an important business risk. As discussed in Appendix A of my Report, the Board has previously found that the small size of Newfoundland Power limits its financial flexibility and makes it more risky than other Canadian electric utilities. This finding has been used to support a higher than average common equity ratio for Newfoundland Power. Furthermore, as discussed on pages 12-13 of my Report, the small size of Newfoundland Power actually has had a negative effect on the Company's borrowing costs because Newfoundland Power's bond issuances are typically in the range of $75 million, whereas the minimum threshold for the Canadian market is around $100 million. This would mean that Newfoundland Power must do a private placement of the bonds at a somewhat higher spread against Canadian long bonds than if Newfoundland Power were issuing larger denomination bonds.

In addition, as discussed in Appendix A of my Report, the small size of Newfoundland Power magnifies other business risks, including the weak economic conditions and demographic trends in Newfoundland and Labrador, the risk associated with higher electricity supply costs, and the risk due to customers switching to an alternative fuel supply. In summary, Dr. Cleary appears to acknowledge that small size is a relevant consideration in the risk assessment for Newfoundland Power and that it has not changed since 2012. As such, this does not

support Dr. Cleary's recommendation to reduce the Company's common equity ratio.

Q. On p. 22 of his evidence, Dr. Cleary disagrees that the weather-related risk associated with the Muskrat Falls development justifies your conclusion that this new supply project increases the risk of Newfoundland Power. What is your response?

A. My Report does mention the potential weather-related risk associated with the Muskrat Falls development. However, that is not the primary reason supporting my conclusion about the risk associated with the Muskrat Falls development. As explained on pages 15-17 of Appendix A to my Report, there are questions about the reliability of NLH's current and future generation sources, as well as concerns that the cost of the new power supply will have a significant impact on rates. Based on these two concerns, I concluded that in terms of both current and future reliability of the power supply and future electricity prices, it is clear that Newfoundland Power's risk is higher now than it was at the time of the 2012 GRA filing. In particular, the risk associated with higher electricity prices has increased substantially, and the current risk of supply disruptions has increased since 2012. Moreover, the future electricity supply from NLH will be located farther from the load center, causing more uncertainty with regard to reliability, and Newfoundland Power is dependent on a sole supplier of electricity (i.e., NLH) for 93 percent of its electricity supply.

In response to Dr. Cleary's assertion on page 22 of his evidence that Newfoundland and Labrador Hydro has stated "the reliability of supply to customers will be

improved" after the Muskrat Falls development is completed; I base my view on the Company's response to PUB-NP-013, which states in relevant part:

> The Muskrat Falls generation station is located 1,100 kms from Newfoundland Power's primary load center on the northeast Avalon Peninsula. Following the commissioning of the Muskrat Falls project and the decommissioning of Holyrood, Hydro has indicated that it believes that reliability of supply will be improved. This belief has not been tested. And the replacement of substantial generation resources close to Newfoundland Power's primary load center (i.e., Holyrood) with resources 1,100 kms away raises obvious and potentially serious issues of supply security. These are currently unresolved and under Board investigation. It is possible that additional generation resources will be required closer to Newfoundland Power's primary load center to secure supply reliability. The uncertainty concerning this matter presents potential long-term reliability (and cost) consequences for Newfoundland Power and its customers.

Q. On pages 24-27 of his evidence, Dr. Cleary has attempted to quantify the business risk of Newfoundland Power relative to other Canadian and U.S. regulated utilities. Please comment on this analysis.

A. Dr. Cleary has performed an assessment of the coefficient of variation in the Earnings Before Interest and Taxes ("EBIT") for Newfoundland Power compared to the companies in my Canadian and U.S. electric utility proxy groups for the period from 1995-2014. I have several concerns with Dr. Cleary's analysis. First, as indicated in Dr. Cleary's response to Request for Information NP-CA-016, his EBIT variance analysis was conducted at the holding company level for the U.S. proxy group companies, at the operating company level for Nova Scotia Power and Enbridge Gas Distribution, at the holding company level for Gaz Métro Limited Partnership and at the operating utility level for Newfoundland Power. As such, Dr.

Cleary's analysis provides an inconsistent basis of comparison. Second, Dr. Cleary's EBIT analysis covers the period from 1995-2014, which has seen significant changes in the industry, including electric restructuring, retail competition in some jurisdictions, divestiture of generation assets, and significant industry consolidation through mergers and acquisitions. For this reason, comparison of the variability of EBIT over a 20-year period would most likely be distorted. Finally, earnings for a utility are generally a function of rate base since the utility is allowed to earn a return on the equity portion of its investment in rate base. Dr. Cleary's EBIT variance analysis does not make any adjustments to EBIT for changes in rate base. For example, if a regulated utility makes a significant capital investment that is placed into rate base, the company's EBIT will increase from the prior year because the company will be earning its allowed return on the new investment. In Dr. Cleary's analysis, this capital investment would make it appear the variability in EBIT had increased when in fact it may be attributable to changes in rate base. As such, the variability for the companies in his analysis is most likely overstated, especially in light of the significant capital investments that have occurred during this period. For all of these reasons, I do not believe the Board can rely on Dr. Cleary's EBIT variance analysis as evidence that Newfoundland Power has lower business risk than other Canadian and U.S. regulated utilities.

Q. Dr. Booth and Dr. Cleary agree with you that the Newfoundland and Labrador economy is weaker than the rest of Canada, and that the Province has been harder hit by the decline in energy and commodity prices than most other

Provinces except Alberta. Why do they not agree that the weak economy is an indication that Newfoundland Power's business risk has increased?

A. While Dr. Booth and Dr. Cleary both agree that Newfoundland and Labrador's economy is weaker than the rest of Canada due to the decline in energy and commodity prices, they appear to view this as temporary. They argue that Newfoundland Power has managed through previous downturns in the economy, and the Company has not typically experienced reduced sales during these periods. Once energy and commodity prices rebound, they argue that the Province's long-term economic outlook is not a reason for concern. However, neither Dr. Booth nor Dr. Cleary dispute the evidence from the Conference Board of Canada that Newfoundland and Labrador's real GDP growth over the long-term is expected to be among the weakest in Canada, that the unemployment rate in Newfoundland and Labrador remains much higher than average in Canada, and that population growth in the Province is expected to be weak for the next few years, followed by an actual declining trend as the population ages. Against this backdrop, it is reasonable to believe that Newfoundland Power has higher than average business risk than other Canadian utilities because the economy in the Province cannot be expected to sustain demand growth over the longer-term. Nevertheless, Newfoundland Power must continue to invest in its distribution and transmission system so that it can maintain reliability and service quality standards. This requires the ongoing ability to access capital on reasonable terms.

Q. On pages 35-36 of his evidence, Dr. Cleary presents an analysis of Newfoundland Power's credit metrics that he asserts shows a reduction in the

deemed common equity ratio from 45 percent to 40 percent, along with an allowed ROE ranging from 7.50 percent to 8.50 percent, would not cause Newfoundland Power to fall outside the credit metrics necessary to maintain the Baa rating from Moody's and the mid-to-high A range from DBRS. Please comment.

A. As discussed in Appendix A to my Report, the Board in previous Orders has observed that the "evidence is clear that the rating agencies place importance on [Newfoundland Power's] strong common equity position."[47] I do agree with Dr. Booth that credit metrics are not the sole determinant of a company's credit rating. In the case of Newfoundland Power, I believe it is safe to say that a reduction in both the common equity ratio and the allowed ROE to levels recommended by the Consumer Advocate in this proceeding would not be viewed as credit supportive by Moody's and DBRS.

As discussed in Newfoundland Power's rebuttal evidence, under the scenario in which the common equity ratio is reduced to 40 percent and the ROE is reduced to 7.50 percent, the Company's interest coverage ratio for First Mortgage Bonds would fall below the required level of 2.0 in 2017. As such, Newfoundland Power's ability to issue new First Mortgage Bonds would be limited, as described in the Company's rebuttal evidence.

[47] Order No. P.U. 13(2013), at 17.

Q. What is your conclusion regarding the appropriate cost of equity and equity ratio for the Company?

A. I affirm my recommendations from my initial report. Based on my analysis, the correct ROE for Newfoundland Power is 9.5 percent on 45 percent common equity.

Q. Does this conclude your Rebuttal Testimony?

A. Yes, it does.

90-DAY CONSTANT GROWTH DCF -- U.S. PROXY GROUP

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Company	Ticker	Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Average EPS Growth	Value Line DPS Growth	BR + SV Growth	Average Growth Rate	Low DCF ROE	Mean DCF ROE	High DCF ROE
ALLETE, Inc.	ALE	$2.08	$51.13	4.07%	4.15%	6.00%	3.00%	3.77%	4.26%	7.13%	8.41%	10.19%
Duke Energy Corp	DUK	$3.30	$71.72	4.60%	4.68%	4.00%	3.50%	2.36%	3.29%	7.02%	7.96%	8.69%
Eversource Energy	ES	$1.78	$51.90	3.43%	3.52%	6.30%	6.00%	3.77%	5.36%	7.26%	8.88%	9.84%
Great Plains Energy Inc.	GXP	$1.05	$27.46	3.82%	3.92%	7.20%	6.00%	2.45%	5.22%	6.32%	9.14%	11.16%
OGE Energy Corp.	OGE	$1.10	$26.14	4.21%	4.35%	5.70%	10.00%	3.95%	6.55%	8.24%	10.90%	14.42%
Pinnacle West Capital Corp	PNW	$2.50	$64.78	3.86%	3.93%	4.40%	3.50%	3.73%	3.88%	7.43%	7.81%	8.34%
Westar Energy Inc.	WR	$1.44	$42.31	3.40%	3.48%	4.70%	3.00%	6.00%	4.57%	6.45%	8.05%	9.51%
MEAN				3.91%	4.01%	5.47%	5.00%	3.72%	4.73%	7.12%	8.74%	10.31%
Flotation Costs										0.50%	0.50%	0.50%
										7.62%	9.24%	10.81%

Notes:

[1] Source: Bloomberg Professional
[2] Source: Bloomberg Professional, 90-day average as of March 1, 2016
[3] Equals [1] / [2]
[4] Equals [3] x (1 + 0.5 x [8])
[5] Source: Avg EPS growth rates from Zacks, Value Line, SNL Financial, and Yahoo! Finance at March 1, 2016
[6] Source: Value Line
[7] Source: Value Line
[9] Equals Average([5], [6], [7])
[10] Equals [3] x (1 + 0.5 x Minimum([5], [6], [7])) + Minimum([5], [6], [7])
[11] Equals [4] + [8]
[12] Equals [3] x (1 + 0.5 x Maximum([5], [6], [7])) + Maximum([5], [6], [7])

90-DAY CONSTANT GROWTH DCF -- U.S. PROXY GROUP

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Company	Ticker	Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Zacks EPS Growth	SNL EPS Growth	Value Line EPS Growth	First Call Growth	Average Growth Rate	Low DCF ROE	Mean DCF ROE	High DCF ROE
ALLETE, Inc.	ALE	$2.08	$51.13	4.07%	4.19%	6.00%	6.00%	6.50%	6.00%	6.13%	10.19%	10.32%	10.70%
Duke Energy Corp	DUK	$3.30	$71.72	4.60%	4.70%	4.00%	4.50%	5.00%	3.34%	4.21%	8.02%	8.91%	9.72%
Eversource Energy	ES	$1.78	$51.90	3.43%	3.54%	6.30%	6.40%	7.00%	6.12%	6.46%	9.65%	10.00%	10.55%
Great Plains Energy Inc.	GXP	$1.05	$27.46	3.82%	3.94%	7.20%	5.20%	5.00%	6.87%	6.07%	8.92%	10.01%	11.16%
OGE Energy Corp.	OGE	$1.10	$26.14	4.21%	4.29%	5.70%	4.50%	3.00%	1.75%	3.74%	5.99%	8.02%	10.03%
Pinnacle West Capital Corp	PNW	$2.50	$64.78	3.86%	3.94%	4.40%	5.00%	4.00%	4.14%	4.39%	7.94%	8.33%	8.96%
Westar Energy Inc.	WR	$1.44	$42.31	3.40%	3.49%	4.70%	4.00%	6.00%	5.27%	4.99%	7.47%	8.48%	9.51%
MEAN				3.91%	4.01%	5.47%	5.09%	5.21%	4.78%	5.14%	8.31%	9.15%	10.09%
Flotation Costs											0.50%	0.50%	0.50%
											8.81%	9.65%	10.59%

Notes:

[1] Source: Bloomberg Professional
[2] Source: Bloomberg Professional, 90-day average as of March 1, 2016
[3] Equals [1] / [2]
[4] Equals [3] x (1 + 0.5 x [9])
[5] Source: Zacks at March 1, 2016
[6] Source: SNL Financial Median Long-Term EPS Growth Rate as of March 7, 2016
[7] Source: Value Line
[8] Source: Yahoo! Finance at March 1, 2016
[9] Equals Average([5], [6], [7], [8])
[10] Equals [3] x (1 + 0.5 x Minimum([5], [6], [7], [8])) + Minimum([5], [6], [7], [8])
[11] Equals [4] + [9]
[12] Equals [3] x (1 + 0.5 x Maximum([5], [6], [7], [8])) + Maximum([5], [6], [7], [8])

90-DAY CONSTANT GROWTH DCF -- NORTH AMERICA ELECTRIC PROXY GROUP

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Company	Ticker	Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Zacks EPS Growth	SNL EPS Growth	Value Line EPS Growth	First Call Growth	Average Growth Rate	Low DCF ROE	Mean DCF ROE	High DCF ROE
Canadian Utilities Limited	CU	$1.30	$33.27	3.91%	3.92%	N/A	N/A	N/A	0.67%	0.67%	4.59%	4.59%	4.59%
Emera Incorporated	EMA	$1.90	$43.63	4.35%	4.51%	N/A	6.60%	N/A	7.63%	7.12%	11.10%	11.62%	12.15%
ALLETE, Inc.	ALE	$2.08	$51.13	4.07%	4.19%	6.00%	6.00%	6.50%	6.00%	6.13%	10.19%	10.32%	10.70%
Duke Energy Corp	DUK	$3.30	$71.72	4.60%	4.70%	4.00%	4.50%	5.00%	3.34%	4.21%	8.02%	8.91%	9.72%
Eversource Energy	ES	$1.78	$51.90	3.43%	3.54%	6.30%	6.40%	7.00%	6.12%	6.46%	9.65%	10.00%	10.55%
Great Plains Energy Inc.	GXP	$1.05	$27.46	3.82%	3.94%	7.20%	5.20%	5.00%	6.87%	6.07%	8.92%	10.01%	11.16%
OGE Energy Corp.	OGE	$1.10	$26.14	4.21%	4.29%	5.70%	4.50%	3.00%	1.75%	3.74%	5.99%	8.02%	10.03%
Pinnacle West Capital Corp	PNW	$2.50	$64.78	3.86%	3.94%	4.40%	5.00%	4.00%	4.14%	4.39%	7.94%	8.33%	8.96%
Westar Energy Inc.	WR	$1.44	$42.31	3.40%	3.49%	4.70%	4.00%	6.00%	5.27%	4.99%	7.47%	8.48%	9.51%
MEAN				3.96%	4.06%	5.47%	5.28%	5.21%	4.64%	4.86%	8.21%	8.92%	9.71%
Flotation Costs											0.50%	0.50%	0.50%
											8.71%	9.42%	10.21%

Notes:

[1] Source: Bloomberg Professional
[2] Source: Bloomberg Professional, 90-day average as of March 1, 2016
[3] Equals [1] / [2]
[4] Equals [3] x (1 + 0.5 x [9])
[5] Source: Zacks at March 1, 2016
[6] Source: SNL Financial Median Long-Term EPS Growth Rate as of March 7, 2016
[7] Source: Value Line
[8] Source: Yahoo! Finance at March 1, 2016
[9] Equals Average([5], [6], [7], [8])
[10] Equals [3] x (1 + 0.5 x Minimum([5], [6], [7], [8])) + Minimum([5], [6], [7], [8])
[11] Equals [4] + [9]
[12] Equals [3] x (1 + 0.5 x Maximum([5], [6], [7], [8])) + Maximum([5], [6], [7], [8])

Newfoundland Power
2016/2017 General Rate Application:
Finance Rebuttal Evidence

March 2016

NEWFOUNDLAND POWER
A FORTIS COMPANY

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OVERVIEW OF REBUTTAL EVIDENCE

Drs. Cleary and Booth have recommended changes to Newfoundland Power's capital structure. Both have effectively recommended reducing the common equity in the Company's capital structure from 45% to 40%. Dr. Booth has recommended that Newfoundland Power's return on equity be set at 7.5%.

This rebuttal evidence addresses the forecast impact of the recommendations of Drs. Cleary and Booth upon Newfoundland Power's creditworthiness and ability to attract capital. It also addresses why 45% common equity in Newfoundland Power's capital structure is necessary to permit the Company to maintain creditworthiness commensurate with other Canadian investor owned electric utilities, including those in the Province of Alberta.

1.1 Drs. Cleary and Booth's Recommendations

Dr. Cleary's Recommendation

Dr. Cleary recommends that Newfoundland Power's common equity ratio be reduced from 45% to 40%. His evidence is that Newfoundland Power would maintain "…solid metrics if the equity ratio was reduced to 40% and if the allowable ROE was also reduced." Dr. Cleary indicates "It is not clear why a low business risk firm like [Newfoundland Power] requires an equity ratio that is much higher than average, while being allowed to earn an ROE that is around average."

Dr. Booth's Recommendations

Like Dr. Cleary, Dr. Booth recommends that Newfoundland Power be allowed a 40% common equity ratio because, in his opinion, it is consistent with other Canadian regulated utilities. As a short term measure, Dr. Booth also recommends that "…the 5% equity reduction be deemed using Fortis' cost of preferred shares until the next rate hearing."

In addition, Dr. Booth recommends Newfoundland Power be allowed a return on equity of 7.5% for rate making purposes.

1.2 Implementing a 40% Common Equity Ratio

If the Board were to allow Newfoundland Power a 40% common equity ratio, as opposed to a 45% common equity ratio, the Company would be practically required to refinance its business to reflect the reduced common equity ratio.

This refinancing would include payment of a common dividend equal to the difference between 45% and 40% common equity of approximately $55 million.[1] It would also include borrowings of a similar amount to fund the dividend.

Dr. Booth's recommended "short-term measure" would have the same refinancing result. Dr. Booth has indicated that Newfoundland Power is correct in its assessment that any preference share issue must be over $100 million to be marketable.[2] This $100 million minimum is 9% of the Company's capital structure. So, it is not practically possible for Newfoundland Power to

[1] Newfoundland Power's forecast 2017 rate base is approximately $1.1 billion ($1.1 billion X .05 = $55 million).
[2] See Dr. Booth's evidence, page 96, lines 15 to 16.

issue 5% preferred equity. Dr. Booth's recommendation to deem the 5% common equity reduction at Fortis' cost of preferred shares appears to assume that the 5% deemed preferred equity he recommends will be funded by common equity. Were the Board to deem a 5% preferred share ratio in Newfoundland Power's capital structure which could not actually be financed with preferred shares, then the Company would borrow the necessary funds to dividend the 5% reduction in common equity to Fortis. Otherwise, Fortis would, in effect, be receiving a preferred equity return on a common equity investment.[3] For practical purposes, Dr. Booth's recommended "short-term measure" has the same effect in financing terms as Dr. Cleary's proposal.

Newfoundland Power's borrowing of approximately $55 million to refinance its capital structure to reflect the 40% common equity ratio would have a number of consequences. Newfoundland Power's financial risk would increase. The Company's credit metrics would decrease. In addition, such a significant change would likely result in a re-evaluation of regulatory support by credit rating agencies.

In its February 5, 2016 credit opinion, Moody's Investors Service ("Moody's") has indicated that "…with the current allowed ROE, deemed equity layer and depreciation rate, we expect [Newfoundland Power] to achieve sustainable CFO pre-W/C to debt consistent with our expectations and the current rating."[4]

[3] Such a course would be inconsistent with the opportunity cost of capital. It would be reasonable to assume in these circumstances that Fortis would take the dividend and redirect it to common equity investment in one of its other utility operating companies.

[4] See *Exhibit 4 (1st Revision)*, in *Volume 2, Exhibits and Supporting Materials, Moody's Credit Opinion*, page 3.

Similarly, the Dominion Bond Rating Service ("DBRS") has indicated that it views the Company's 45% common equity ratio as "…comparable to its peers across Canada."[5]

1.3 Consequences of a 40% Common Equity Ratio

Credit Metrics

Table R-1 compares Newfoundland Power's forecast credit metrics as proposed in the Amended Application with those which would result from the Board's allowing a 7.5% return on equity on a 40% common equity ratio.

Table R-1
Credit Metrics: 2016 & 2017
Proposed vs. 7.5% ROE @ 40% Equity

	2016		2017	
	Proposed	**7.5%/40%**	**Proposed**	**7.5%/40%**
Pre-Tax Interest Coverage (times)	2.5	2.0	2.5	2.0
Cash Flow Interest Coverage (times)	4.1	3.7	4.0	3.5
Cash Flow Debt Coverage (%)	19.3	15.9	18.2	14.5

Capacity to Issue First Mortgage Bonds

The trust deed which secures the Company's First Mortgage Bonds has an interest coverage requirement of 2 times for Newfoundland Power to issue additional bonds.[6]

[5] See *Exhibit 4 (1st Revision)*, in *Volume 2, Exhibits and Supporting Materials, DBRS Rating Report*, page 1.
[6] This is described at *Company Evidence, Section 4: Finance (1st Revision)*, page 4-42, *et. seq.*

Table R-2 compares the forecast calculation of the earnings test required under the trust deed for the issue of new First Mortgage Bonds in 2017 under the proposals in the Amended Application with those which would result from the Board's allowing a 7.5% return on equity on a 40% common equity ratio.

Table R-2
Earnings Test: 2017
Proposed vs. 7.5% ROE @ 40% Equity

	Proposed	**7.5%/40%**
Earnings Test for First Mortgage Bonds (times)	2.3	1.8

The forecast 1.8 times interest coverage in 2017 is below the trust deed requirement of 2.0 times for the issue of additional bonds. This indicates that Newfoundland Power's ability to issue First Mortgage Bonds in 2017 will be limited under the recommendations of Drs. Cleary and Booth.

1.4 Capital Structure and Return Comparisons

Both Dr. Booth and Dr. Cleary rely on comparisons of Newfoundland Power's common equity ratio and allowed returns with those of other regulated electric utilities to support their capital structure and return recommendations. Specifically, Dr. Booth makes reference to Alberta electric distributors.[7]

[7] For example, at page 94 of his direct evidence, Dr. Booth makes the claim that "FortisAlberta has an unambiguously lower rating on 8.3% ROE on 40% common equity." In fact, Moody's has assigned the same long term rating of Baa1 to both FortisAlberta and Newfoundland Power.

FortisAlberta is an Alberta electric distributor. The Alberta Utilities Commission (the "AUC") allows FortisAlberta a 40% common equity ratio for ratemaking purposes.

Table R-3 provides a comparison of returns on equity allowed for ratemaking purposes with achieved returns on equity for Newfoundland Power and FortisAlberta for the period 2012 to 2014.[8]

Table R-3
Returns on Equity Comparison (%)
Newfoundland Power (NP) vs. Fortis Alberta (FA)
2012 to 2014

	2012		2013		2014		2012-2014 Avg.	
	NP	**FA**	**NP**	**FA**	**NP**	**FA**	**NP**	**FA**
Allowed ROE (%)	8.80	8.75	8.80	8.30	8.80	8.30	8.80	8.45
Achieved ROE (%)	8.98	9.99	9.16	9.49	9.15	9.77	9.10	9.75
Difference	0.18	1.24	0.36	1.19	0.35	1.47	0.30	1.30

Over the period 2012 to 2014, the allowed return on equity for ratemaking purposes for Newfoundland Power was 8.8%. Over the same period, the allowed return on equity for ratemaking purposes for Alberta electric distributors, including FortisAlberta, was lower. In 2012, the Alberta ratemaking return on equity was 8.75%; in 2012 and 2013, it was 8.3%.

While the ratemaking return on equity for FortisAlberta was lower than that for Newfoundland Power throughout the 2012 to 2014 period, FortisAlberta achieved returns on equity that were

[8] Rule 005 forms for FortisAlberta can be found at http://www.auc.ab.ca/acts-regulations-and-auc-rules/rules/Pages/default.aspx. See for 2012, 2013 and 2014.

consistently higher than those achieved by Newfoundland Power. Newfoundland Power's achieved returns on equity averaged 9.1%, or 0.3% over the return used for ratemaking purposes. For FortisAlberta, the achieved returns on equity averaged 9.75%; or 1.3% over the return used for ratemaking purposes.

Credit rating agencies' quantitative assessment of the creditworthiness of utilities considers both achieved and allowed returns. Achieved returns provide the cashflows available to service debt. These cashflows are essentially what credit metrics measure.

Moody's provides credit opinions in respect of both Newfoundland Power and FortisAlberta and has assigned the same long term rating of Baa1 to both utilities.

Table R-4 provides a comparison of credit metrics for Newfoundland Power and FortisAlberta for the period 2012 to 2014 as assessed by Moody's.[9]

Table R-4
Credit Metrics Comparison
Newfoundland Power (NP) vs. Fortis Alberta (FA)
2012 to 2014

	2012		2013		2014		2012-2014 Avg.	
	NP	**FA**	**NP**	**FA**	**NP**	**FA**	**NP**	**FA**
CFO pre-WC + Interest / Interest (times)	3.5	5.2	3.7	4.7	3.9	4.4	3.7	4.8
CFO pre-WC / Debt (%)	16.9	21.6	19.5	18.2	18.6	17.5	18.3	19.1
CFO pre-WC – Dividends / Debt (%)	14.9	18.2	15.2	14.9	14.6	14.0	14.9	15.7
Debt / Capitalization (%)	51.9	56.0	49.7	55.2	50.7	53.9	50.8	55.0

[9] The source of the FortisAlberta data is Moody's Investors Service Credit Opinion of June 30, 2015. A copy of this report is Exhibit R1 to this rebuttal evidence.

Over the period 2012 to 2014, FortisAlberta generated slightly stronger credit metrics, on average, than Newfoundland Power. However, during the period, FortisAlberta had both a lower allowed return on equity and a lower equity ratio than Newfoundland Power. The returns on equity authorized by the AUC for FortisAlberta have enabled FortisAlberta, with its 40% equity ratio, to achieve credit metrics that are comparable to those at Newfoundland Power with its 45% equity ratio.[10]

The fact that Newfoundland Power's 45% common equity ratio has allowed it to generate credit metrics which are only comparable (and, on average, slightly weaker) than utilities such as FortisAlberta supports the continuing reasonableness of the Company's current capital structure. It also supports DBRS's observation that Newfoundland Power's regulated capital structure of 45% common equity is comparable to its peers across Canada.

[10] Credit metrics compose 40% of Moody's ratings (Factor 4: Financial Strength). A comparison of the other factors considered by Moody's in its credit opinions indicates that FortisAlberta and Newfoundland Power score the same on the factors (i) Regulatory Framework (25%) and (ii) Ability to Recover Costs and Earn Returns (25%). On the third factor Diversification (10%), FortisAlberta is scored higher than Newfoundland Power.

Moody's Investors Service
Credit Opinion: FortisAlberta Inc.

MOODY'S
INVESTORS SERVICE

Credit Opinion: FortisAlberta Inc.

Global Credit Research - 30 Jun 2015

Calgary, Alberta, Canada

Ratings

Category	Moody's Rating
Outlook	Stable
Senior Unsecured MTN -Dom Curr	(P)Baa1

Contacts

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Key Indicators

[1]**FortisAlberta Inc.**

	3/31/2015(L)	12/31/2014	12/31/2013	12/31/2012	12/31/2011
CFO pre-WC + Interest / Interest	**4.4x**	**4.4x**	**4.7x**	**5.2x**	**4.0x**
CFO pre-WC / Debt	**16.4%**	**17.5%**	**18.2%**	**21.6%**	**15.9%**
CFO pre-WC - Dividends / Debt	**12.9%**	**14.0%**	**14.9%**	**18.2%**	**12.7%**
Debt / Capitalization	**54.1%**	**53.9%**	**55.2%**	**56.0%**	**56.1%**

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations. Source: Moody's Financial Metrics

Note: For definitions of Moody's most common ratio terms please see the accompanying User's Guide.

Opinion

Rating Drivers

- Credit supportive regulatory environment

- Performance Based Regulation has marginally increased risk

- Stable financial performance

- FAB is independent of parent Fortis Inc.

Corporate Profile

FortisAlberta Inc. (FAB) is a regulated electricity distribution utility headquartered in Calgary, Alberta. FAB is a low risk electric distribution company that is not involved in electric generation, transmission or direct sale of electricity. It serves about 532,000 customers in a largely rural territory in central and southern Alberta and is regulated by the Alberta Utilities Commission (AUC) under performance-based regulation (PBR) for a five-year term, effective January 1, 2013. FAB is an indirect, wholly-owned subsidiary of Fortis Inc. (FTS, not rated), a diversified international electric and gas utility holding company.

SUMMARY RATING RATIONALE

FAB's Baa1 senior unsecured rating reflects its credit supportive regulatory framework and stable financial performance. The PBR framework increases regulatory risk in the near term and increases cash flow volatility compared to cost of service rate regulation; however, we expect that PBR will continue to become more predictable as precedent decisions are established that reduce regulatory uncertainty. We continue to view the regulator as credit supportive given its track record of allowing the company to recover its costs and earn its allowed returns. We view FAB as independent of parent Fortis Inc.

DETAILED RATING CONSIDERATIONS

CREDIT SUPPORTIVE REGULATORY ENVIRONMENT

A supportive regulatory environment with no direct commodity price risk, a monopoly position and strong underlying economic fundamentals in its service territories underpin the company's credit strength.

We view the Alberta regulatory environment as credit supportive. The company has an established track record of recovering its costs and earning its allowed returns. The transparent and consultative approach to regulation generally results in decisions that are balanced and consistent. For example, the regulator indicated in February 2010 its intention to transition to a PBR framework and provided stakeholders with opportunities to provide input in an effort to create a balanced regulatory environment. FAB collects all its distribution revenues from electric retailers and thus bears counterparty credit risk. This risk is mitigated by prudential requirements for non-investment grade retailers typically in the form of letters of credit.

In addition to having no direct exposure to commodity price risks, FAB is insulated from the business risks typical for integrated utilities and power generators and passes on all transmission costs to retailers. While possible, we think it is unlikely that FAB will have to provide additional services including the provision of power. FAB holds franchise agreements with municipalities for the exclusive right to own and operate distribution systems reinforcing its monopoly position in its service territories. While municipalities may acquire FAB's distribution system under certain conditions; for example, at the end of a franchise agreement, we think this is unlikely for several reasons including the potentially high valuation attached to the assets. Nevertheless, a reduction in service territories and associated rate base could have a material effect on FAB's credit quality.

Offsetting these strengths are regulatory lag, ongoing uncertainty related to utility asset dispositions and relatively modest allowed returns. Regulatory lag increases uncertainty, which is negative for credit quality. Two recent decisions from March 2015, the generic cost of capital decision and the capital tracker decision, have some elements that are retroactive to the start of the PBR period in 2013. Retroactive adjustments highlight the uncertainty created by lag in regulatory decisions.

The ongoing utility asset disposition (UAD) issue is a weakness in Alberta regulation. The prospect of suffering a loss of prudently incurred rate base that is borne by shareholders is clearly credit negative for utilities. This is not consistent with our expectation of the regulatory framework in Alberta. To date we do not believe there are any ongoing proceedings that could lead FortisAlberta to a material potential loss of rate base. FortisAlberta Inc has joined with other affected regulated utilities to challenge the regulator's decision through the courts with a decision from the Alberta Court of Appeal expected in the second half of 2015. If the utilities are ultimately unsuccessful in their court challenges or if in the interim FortisAlberta appears poised to suffer a loss of rate base borne by shareholders Moody's could take rating action.

PBR HAS MARGINALLY INCREASED RISK

There is increased regulatory risk associated with the transition from a historical cost of service regulatory model to PBR. PBR also marginally increases overall risk owing to the potential for increased cash flow volatility compared to cost of service regulation. We expect that PBR will become more predictable as decisions are made, providing precedents that reduce regulatory uncertainty. The establishment of precedents will also likely diminish regulatory lag that typically increases risk. The implementation of PBR did not result in changes to the underlying legislative framework or the mandate of the regulator.

The successful implementation of the capital tracker is a key to credit quality. The March 2015 capital tracker decision approved the majority of FortisAlberta's capital programs and for those that were only partially approved, the regulator allowed that further evidence could be provided in subsequent filings. FAB has a large, ongoing capital program forecast at more than $400 million in 2015, compared to a 2015 mid-year rate base forecast of about $2.7 billion and 2014 depreciation and amortization amounts of around $165 million. Growth capital

expenditures included in the capital tracker go into rate base during the PBR period generating cash flow and supporting credit metrics. Material growth capital investment not included in rate base during the PBR period that does not lead to additional revenues and related cash flow could put pressure on key cash based credit metrics during the PBR period.

Performance based regulation utilizes a formula based approach to rate making. Rates are adjusted on an annual basis and each year they are adjusted for inflation, a productivity factor, some costs beyond management's control and a capital tracker to provide support for the capital program. The initial term began January 1, 2013 and runs for 5 years with initial rates based on 2012 rates that were established under a cost of service methodology. Rate adjustments for costs beyond management's control are subject to materiality thresholds. If the return on equity is either 300 bps above or below the allowed ROE of 8.75% for two years and 500bps for one year, the PBR plan may be reopened, reducing the probability of extended periods of low or high cash flow. The PBR plan does expose the company to risks associated with achieving the productivity factor, longer time periods between cost of service rate resets and inflation.

STABLE FINANCIAL PERFORMANCE

We expect financial performance to remain stable. While PBR is expected to lead to increased cash flow volatility, we expect financial metrics to remain within ranges we associate with the current rating. Key drivers of the underlying stable performance and predictable cash flow are the company's capital structure, which typically follows the capital structure allowed by the regulator currently set at 59% debt. Cash flow from operations is largely made up of two elements: a return of capital in the form of depreciation and a return on capital that is a function of the allowed return on equity, rate base and equity thickness. Given the ongoing capital investment into rate base, we expect cash flow to continue to grow, broadly proportionate to ongoing growth in debt, resulting in stable financial metrics. A March 2015 GCOC decision set FAB's ROE from 2013 forward at 8.3%, down from an interim allowed rate of 8.75%. The decision also revised downward the equity ratio from 41 to 40%. The downward revision is itself negative for credit quality and puts downward pressure on forward looking financial metrics; however, for now the downward revision only applies to revenue associated with the capital tracker. The existing ROE of 8.75% continues to be applied to rate base assets during the PBR period that are not funded by the capital tracker.

FAB IS INDEPENDENT OF PARENT FORTIS INC

We consider FortisAlberta to be operationally and financially independent of parent Fortis Inc, although the company may periodically rely on its parent for equity injections to maintain its capital structure in line with the regulator's established parameters. We expect that Fortis Inc. would provide extraordinary support to FAB if required, provided that the parent had the economic incentive to do so. We believe that the parent will continue to have sufficient resources to provide support, if required. At FYE 2014, FTS had a $1 billion committed revolving corporate facility at the FTS corporate level of which $509 million was unused.

Liquidity Profile

FAB has adequate liquidity.

Key sources of liquidity include adjusted CFO Pre-W/C that measured $267 million for the 12 months ended March 31, 2015 and that we expect to continue to grow as capital investments are brought into rate base. The company also had an unsecured committed credit facility of $250 million maturing in August 2019 of which about $181 million was undrawn at March 31, 2015.

FAB is free cash flow negative due to its large capital expenditures with short-term debt of $80 million outstanding at the end of March. We expect FAB to refinance its this obligation while remaining in compliance with capital requirements imposed by its Trust Indenture and committed credit facility. We expect the company to continue to have good access to debt capital markets and that parent Fortis Inc. will provide equity injections, if required.

Rating Outlook

FAB's stable rating outlook reflects our view that FAB will continue to operate as a low risk electric distribution utility in a credit supportive regulatory environment.

What Could Change the Rating - Up

A forecast improvement in FAB's CFO pre-W/C to Debt above 20% on a sustained basis could result in a rating upgrade; however, an upgrade is unlikely without improvements in the regulatory framework, including a positive

resolution of the utility asset disposition issue.

What Could Change the Rating - Down

While we don't expect it, a deterioration in the supportiveness of FAB's regulatory framework or a forecast sustained decline in CFO pre-W/C to Debt below 13% could result in a downgrade.

Rating Factors

FortisAlberta Inc.

Regulated Electric and Gas Utilities Industry Grid [1][2]	Current LTM 3/31/2015		[3]Moody's 12-18 Month Forward ViewAs of 6/30/2015	
Factor 1 : Regulatory Framework (25%)	**Measure**	**Score**	**Measure**	**Score**
a) Legislative and Judicial Underpinnings of the Regulatory Framework	A	A	A	A
b) Consistency and Predictability of Regulation	A	A	A	A
Factor 2 : Ability to Recover Costs and Earn Returns (25%)				
a) Timeliness of Recovery of Operating and Capital Costs	A	A	A	A
b) Sufficiency of Rates and Returns	Baa	Baa	Baa	Baa
Factor 3 : Diversification (10%)				
a) Market Position	A	A	A	A
b) Generation and Fuel Diversity	N/A	N/A	N/A	N/A
Factor 4 : Financial Strength (40%)				
a) CFO pre-WC + Interest / Interest (3 Year Avg)	4.7x	A	4x - 4.5x	Baa
b) CFO pre-WC / Debt (3 Year Avg)	18.7%	Baa	14% - 18%	Baa
c) CFO pre-WC - Dividends / Debt (3 Year Avg)	15.3%	A	10% - 14%	Baa
d) Debt / Capitalization (3 Year Avg)	54.8%	Baa	55% - 57%	Baa
Rating:				
Grid-Indicated Rating Before Notching Adjustment		Baa1		Baa1
HoldCo Structural Subordination Notching			0	0
a) Indicated Rating from Grid		Baa1		Baa1
b) Actual Rating Assigned				Baa1

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations. [2] As of 3/31/2015(L); Source: Moody's Financial Metrics [3] This represents Moody's forward view; not the view of the issuer; and unless noted in the text, does not incorporate significant acquisitions and divestitures.

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MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.

Newfoundland Power Inc.

Executive Compensation Review

March 18, 2016

Prepared by: Karl Aboud

Project Scope

Newfoundland Power Inc. (NF Power) requested that Hay Group provide a reasonableness review of NF Power's compensation structure for its four senior executive positions: the President & CEO, the VP Operations & Engineering, the VP Finance & CFO, and the VP Regulation & Planning.

The project mandate included that Hay Group would compare:

- NF Power executive jobs to others in the market place on the basis of similar job content (i.e., evaluation points), which is consistent with NF Power's historical compensation principles;

- NF Power compensation values to those of a broad selection of Canadian commercial industrial organizations (i.e., the comparator group), which is consistent with NF Power's historical compensation principles;

- NF Power compensation values to the median level (i.e., 50th percentile) of the defined comparator group, which is consistent with NF Power's historical compensation principles; and

- NF Power's compensation package against all elements of compensation, which includes Annual Base Salary, Target Total Cash (i.e., base salary plus target bonus), Target Total Direct (i.e., total cash plus mid/long term incentive), and Target Total Remuneration (i.e., total direct plus benefits, pension and perquisites).

This review has been prepared by Mr. Karl Aboud, Senior Principal, Korn Ferry Hay Group Canada Reward Practice. For reference please see Karl's resume in Appendix A.

Summary

In summary, Hay Group believes that:

- It is reasonable for NF Power to use comparative executive jobs (i.e., jobs at similar evaluation points to those of NF Power) within the broad Canadian Commercial Industrial market place as its comparator group;

- It is reasonable for NF Power to use the Median / 50th Percentile levels of comparator group compensation values as the basis by which to establish its own executive pay standards; and

- The NF Power incumbent-specific executive pay values are within the normal range of variance to the market pay standards that Hay Group typically experiences in these types of reviews. More specifically:

    - The NF Power incumbent specific salaries range from being as low as 10% below market median to as high as 4.6% above market median. This range of differential is easily within the norms of virtually all sophisticated organizations in Canada. Furthermore, NF Power has a salary range structure that sets its range minimum to be 15% below market median and its range maximum to be 15% above market median. This range spread is, if anything, a bit narrow to private sector market standards, which are more typically 20% above & below standard. As such, NF Power's salary differentials are easily within its approved range structure.

    - The NF Power annual bonus value or short term incentive (STI) targets (i.e., 50% for the CEO and 40% for the other three executives) are less than the respective market median standards. This perspective is shown via the data on Table 2, to follow. We'll use the CEO for example, but all executive calculations are consistent. In Table 2, the CEO's salary is 3.7% less than market standard but the CEO's total cash is 11.2% less than market standard. The difference between the two data sets is STI. Specifically, the NF Power CEO has a 50% target STI (i.e., 540,000 / 360,000), while that of the market is 63% (i.e., 608,188 / 373,753).

Job Content / Job Evaluation

Every organization has unique attributes with respect to business functions, size (e.g., revenues, assets), geographical diversity, ownership, and corporate structure. Furthermore, the jobs within each organization are unique relative to factors such as mandate, reporting relationship, decision-making authority, etc. These attributes should be normalized when an organization compares its jobs to those of the market place.

Hay Group uses its job evaluation methodology to "point score" all positions in its compensation database. Job evaluation allows the skills, efforts, and responsibilities of a job to be quantified, such that the resulting points may be used as a comparison proxy that adjusts for the differences between the various comparator organizations and their unique job mandates. An organization's jobs are compared to others in the market place on the basis of similar job content / job evaluation points. Highlights of the Hay Group Method of Job Evaluation are provided in Appendix B.

Each of the four NF Power executive jobs in question has been evaluated, and their Total Point evaluations are illustrated in Table 1, below. For example, the NF Power CEO role will be compared to the pay values of executive jobs in the market place that are represented by 2128 Total Points of job content.

Table 1 – NF Power Job Evaluations

NF Power Jobs	Total Job Evaluation Points
President & CEO	2128
VP Operations & Engineering	1628
VP Finance & CFO	1560
VP Regulation & Planning	1560

It should be noted that the evaluation process only concerns itself with the skills, efforts and responsibilities required for competent performance. The evaluation points do not reflect incumbent-specific characteristics such as performance or actual pay.

Comparative Markets

The most current Hay Group compensation database is effective as of December 2015, and has 544 participating organizations. NF Power pay principles suggest that its jobs be compared to the Commercial Industrial subset of the database, which is comprised of 278 organizations, and for which the participant list is illustrated in Appendix C.

Hay Group believes that it is reasonable for NF Power to compare itself to the list of organizations of Appendix C because:

- Jobs are compared on a “point adjusted” basis which means they are compared to those of similar overall skill, effort and responsibility, and not necessarily on the basis of “same title”;

- The organizations are comparably classified as ”private sector commercial industrial” and

- NF Power competes for its executive resources with organizations across the breadth and depth of business sectors across Canada.

Percentile Levels

This review will present comparative values at three percentile levels, being:

- The 25th percentile, which represents the compensation values at which twenty-five percent of the database observations pay less and seventy-five percent pay more;

- The 50th percentile (i.e., median), which represents the compensation values at which fifty percent of the database observations pay less and fifty percent pay more; and

- The 75th percentile, which represents the compensation values at which seventy-five percent of the database observations pay less and twenty-five percent pay more.

NF Power sets its pay standards relative to market Median / P50, which Hay Group believes is reasonable because:

- As a utility it is appropriate to compare to the standard of a broad market place as opposed to only comparing against the higher or lower paying sectors; and

- NF Power incorporates performance considerations in its determination of incumbent-specific salary and bonus values, such that higher performers will be appropriately paid above market standards (i.e., above P50), while those who have not yet proven themselves may not be fully paid to market standards (i.e., below P50).

Compensation Elements

The review will consider the compensation elements as listed and defined below.

Actual Base Salary	The actual annual base salary paid to the comparable database observations.
Target Total Cash	Actual base salary plus an annual bonus value that represents the target award assuming that all incentive provisions are accomplished exactly to plan.
Target Total Direct	Target total cash plus a mid/long term incentive value (i.e., LTI) that represents the assumed annualized net present value of the mid/long term incentive grants.
Target Total Remuneration	Target total direct plus a noncash value that is the sum of the employer paid costs of the organization's benefit, perquisite, and retirement programs. Further explanation of the calculation of the employer's cost of the noncash items is found in Appendix D.

Compensation Analysis

Tables 2 and 3, following, compare NF Power compensation values to those of the market place.

Table 2 compares the values of all compensation elements previously defined in this report.

Table 3, on the other hand, excludes the NF Power LTI values. NF Power has advised Hay Group that LTI values are not recovered in the regulatory process, and therefore Table 3 assesses the cost implications for the rate payers.

Table 2 – All Compensation Elements

Title	Statistic	Points	Actual Base Salary ($)	Target Total Cash ($)	Long-Term Incentive Present Value (eligible)* ($)	Target Total Direct Compensation ($)	Target Total Remuneration ($)
President & CEO		2128	**360,000**	**540,000**	**324,000**	**864,000**	**955,070**
	P75		469,409	781,126	641,593	1,332,829	1,454,841
	P50		373,753	608,188	336,741	850,266	924,405
	P25		302,374	454,499	142,059	563,585	607,208
	NP vs. P50		-3.7%	-11.2%	-3.8%	1.6%	3.3%
VP, Operations & Engineering		1628	**250,000**	**350,000**	**125,000**	**475,000**	**564,211**
	P75		350,831	538,606	344,149	799,439	886,092
	P50		277,707	402,327	168,408	514,276	600,762
	P25		232,753	315,566	62,842	369,070	405,597
	NP vs. P50		-10.0%	-13.0%	-25.8%	-7.6%	-6.1%
VP, Finance & CFO		1560	**280,000**	**392,000**	**140,000**	**532,000**	**607,986**
	P75		330,507	501,931	304,438	730,550	800,007
	P50		267,704	382,365	152,694	482,084	554,037
	P25		225,986	305,897	59,237	352,317	387,153
	NP vs. P50		4.6%	2.5%	-8.3%	10.4%	9.7%
VP, Regulation & Planning		1560	**280,000**	**392,000**	**140,000**	**532,000**	**627,869**
	P75		330,507	501,931	304,438	730,550	800,007
	P50		267,704	382,365	152,694	482,084	554,037
	P25		225,986	305,897	59,237	352,317	387,153
	NP vs. P50		4.6%	2.5%	-8.3%	10.4%	13.3%

Notes:

* Newfoundland Power LTI values reflect Policy LTI values effective 2016.

Table 3 – Rate Payer Adjustment (LTI excluded)

Title	Statistic	Points	Target Total Remuneration ($)	Long-Term Incentive Present Value (eligible)* ($)	Target Total Remuneration ** ($)
President & CEO		2128	**955,070**	**324,000**	**631,070**
	P75		1,454,841		1,454,841
	P50		924,405		924,405
	P25		607,208		607,208
	NP vs. P50		3.3%		-31.7%
	Market Position				P27
VP, Operations & Engineering		1628	**564,211**	**125,000**	**439,211**
	P75		886,092		886,092
	P50		600,762		600,762
	P25		405,597		405,597
	NP vs. P50		-6.1%		-26.9%
	Market Position				P29
VP, Finance & CFO		1560	**607,986**	**140,000**	**467,986**
	P75		800,007		800,007
	P50		554,037		554,037
	P25		387,153		387,153
	NP vs. P50		9.7%		-15.5%
	Market Position				P37
VP, Regulation & Planning		1560	**627,869**	**140,000**	**487,869**
	P75		800,007		800,007
	P50		554,037		554,037
	P25		387,153		387,153
	NP vs. P50		13.3%		-11.9%
	Market Position				P40

Notes:

* Newfoundland Power LTI values reflect Policy LTI values effective 2016.

** Newfoundland Power value excludes LTI, but is compared to market data that includes LTI.

Appendix A

Karl Aboud

Toronto, Canada

Overview

Karl Aboud is the National Director of Hay Group Canada's Reward Consulting Practice.

The Reward Consulting Practice includes executive compensation, job measurement, incentive design, market pricing, performance management, and salary structure.

Karl joined Hay Group in 1990, and is based in the Toronto office.

Client Sectors

The Reward Practice provides its service offerings to a wide variety of industries, including financial services, manufacturing, utilities, transportation, pharmaceutical, retail/wholesale and the public sector, and is active across all provinces of Canada.

Karl's Education and Affiliations

Karl earned his Bachelor of Business Administration from Bishop's University in 1976, and his Masters Business Administration from The University of Western Ontario in 1982.

Karl is a frequent speaker & presenter at many Human Resource affiliations across Canada, has published many compensation oriented journal articles, and was one of the co-authors of a Hay Group text entitled The Manager's Guide to Rewards.

Prior to joining Hay Group, Karl was Manager Investment Banking, RBC Financial, and was also Director of Compensation for Moore Corporation Limited.

Contact

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Appendix B – Hay Group Method of Job Evaluation

To date, the Hay Group Method has been used to evaluate hundreds of thousands of clerical, blue collar, technical, professional, sales and managerial jobs within a wide variety of private and public sector organizations.

The focus of the job evaluation process using the Hay Group Method is on the nature and requirements of the job itself, not on the capabilities, background, personal characteristics, or the current salary of the job holder.

The Hay Group Method is based on the premise that jobs can be grouped in terms of the **knowledge** required to do the job, the **thinking** needed to solve the problems commonly faced, and the **responsibilities** assigned to the jobs.

The Hay Group Method is reflected in Guide Charts used to define each factor and provide quantitative measures that form the basis for evaluation.

By focusing on the important aspects of the content of each job and the end results which each is expected to achieve, the Hay Group Method provides a vehicle for systematically assessing the relationships among various positions and their relative value to the organization.

Additional safeguards are built-in to ensure that the final evaluations are free of bias. The Hay Group Method provides a rational, disciplined approach to job evaluation.

With 7 offices in Canada, 18 in the U.S.A. and 7,000 clients serviced from 64 offices in 28 countries worldwide, Hay Group Limited is the largest Human Resources consulting firm in the world.

In Canada, Hay Group has worked with over 1,500 organizations in both public and private sectors. In the private sector, a list of our clients utilizing the Hay Group Guide Chart Method includes almost one half of Fortune's 500 companies and over 80% of the Financial Post's Top 100 companies in Canada and 50% of the Top 1,000 companies in Canada.

The Hay Group Guide Chart factors are listed as follows.

- **Know-How**
  - Practical, technical, or specialized knowledge and skill (depth and/or breadth)
  - Planning, Organizing & Integrating Knowledge
  - Communicating & Influencing Skills
- **Problem Solving**
  - Thinking Environment – Freedom to Think
  - Thinking Challenge
- **Accountability**
  - Freedom to Act
  - Nature of Impact
  - Magnitude of Impact

Appendix C – 2016 Canadian Commercial Industrial Market

3M Canada Company
A&W Food Services of Canada Inc.
ALS Canada Ltd.
AMEC Americas Limited
Agfa Healthcare Canada
Agfa Inc.
Agnico-Eagle Mines Limited
Ainsworth Lumber Co. Ltd.
Air New Zealand
Air Products Canada Ltd.
Albéa Canada Inc.
Alberta Newsprint Company
Alberta-Pacific Forest Industries Inc.
Alcon Canada Inc.
Allergan Canada Inc.
AltaSteel Ltd.
Amcor Limited
Amgen Canada Inc.
Amway Canada Corporation
Andrew Peller Limited
ArcelorMittal - Baffinland Iron Mines Corporation
ArcelorMittal Canada
ArcelorMittal Canada Contrecoeur-Ouest Inc.
ArcelorMittal Canada Hamilton
ArcelorMittal Canada Longeuil
ArcelorMittal Canada Saint-Patrick
ArcelorMittal Dofasco Inc.
ArcelorMittal Mines Canada
ArcelorMittal Tailored Blanks Americas Corp.
ArcelorMittal Tubular Products - Automotive Division
Archer-Daniels-Midland Company (Canada) Ltd.
Arkema Canada Inc.
Arrow Transportation Systems Inc.
Asahi Refining Canada, Ltd.
Ashland Inc.
Ashland Inc. - Performance Materials
Ashland Inc. - Valvoline
Astellas Pharma Canada Inc.
AstraZeneca Canada Inc.
Atlantic Packaging Products Ltd.
Avis Budget Group, Inc.
Axiall Canada Inc.
BASF Canada Inc.
B/E Aerospace, Inc.
BHP Billiton Canada Inc.
BMT Fleet Technology
BP Canada Energy Group ULC
BWXT Canada Ltd.
Barilla
Barrick Gold Corporation
Baxter Corporation
The Bay
Bayer Inc.
Becton Dickinson Canada Inc.
Belden (Canada) Inc.
Boehringer Ingelheim (Canada) Ltd.
Bonduelle North America Inc.
The Brick Warehouse LP
Bristol-Myers Squibb Canada Co.
Bruce Power L.P.
CGGVeritas
CHEP Canada Inc.
CKF Inc.
CLAAS North America Holdings Inc.
CNH Industrial
CSL Silicones Inc.
Cabot Canada Ltd.
Campbell Company of Canada
Canada Goose Inc.
Canadelle Inc.
Canadian Forest Products Ltd.
Canadian National Railway Company
Canfor Pulp Limited Partnership
Canpotex Limited
Capgemini Canada
Capstone Mining Corp.
Cargill Limited
Catalyst Paper Corporation
Caterpillar of Canada Corporation
Caterpillar Tunneling Canada Corporation
Centerra Gold Inc.
Centrica Energy Canada
Cermaq Canada Ltd.
Chemtura Canada Co Cie
Christie Digital Systems Inc.
Cliffs Natural Resources Inc.
Coca-Cola Bottling Company
Colacem Canada Inc.
Compass Group Canada
Continental Tire Canada, Inc.
Coty Canada
Country Ribbon Inc.

Cytec Canada Inc.
DSM Nutritional Products Canada Inc.
Danfoss Inc.
De Beers Canada Inc., Corporate Division
De Beers Canada Inc., Exploration Division
De Beers Canada Inc., Mining Division
Detour Gold Corporation
Direct Energy
Dominion Diamond Corporation - Ekati Diamond Mine
Dow Corning Canada Inc.
Dr. Oetker Ltd.
Dyno Nobel Canada Inc.
ENGIE North America
Eaton Corporation
Eden Valley Poultry Inc.
Eli Lilly Canada Inc.
EnerSys Inc.
Essar Steel Algoma Inc.
FMC of Canada, Ltd.
Finning (Canada)
Finning International Inc.
First Majestic Silver Corp.
Fisher & Paykel Appliances
Fluor Canada Ltd.
GE Canada
Gap (Canada) Inc.
General Kinetics Engineering Corporation
Gerdau Long Steel North America
Giant Tiger Stores Limited
GlaxoSmithKline Inc.
Glazer's Distributors
Glencore Canada Corporation - Copper
Glencore Canada Corporation - Nickel
Glencore Canada Corporation - Zinc
Grand & Toy
Griffith Laboratories Limited
Group SEB Canada Inc.
Henry Schein Canada
Hilti (Canada) Corporation
Hoffmann-La Roche Ltd.
The Home Depot Canada
Home Outfitters
HudBay Minerals Inc.
Hudson's Bay Company
Huntsman Polyurethane
IKEA Canada
INEOS Canada Partnership
IHS Energy (Canada) Limited
Information Services Corporation of Saskatchewan
International Flavors & Fragrances Canada Ltd.
J.D. Irving, Limited - Forestry & Forest Products
JTI-Macdonald Corp.
Janssen Inc.
John Deere Limited Canada
K+S Potash Canada
KGHM International Ltd.
KPMG MSLP
Kellogg Canada Inc.
Kimberly-Clark Corporation
Kinross Gold Corporation
Kraft Heinz Company
LANXESS Inc.
Labatt Breweries of Canada
Lake Shore Gold Corp.
Lantic Inc.
Lehigh Hanson Materials Limited
Leo Pharma
Levi Strauss & Co. (Canada) Inc.
LifeLabs
Linde Canada Limited
Luxottica Group
Magna International Inc.
Magotteaux Ltée
Marine Harvest Canada
Mary Kay, Inc.
McCormick Canada Co.
McElhanney Consulting Services Ltd.
The McElhanney Group Ltd.
McElhanney Land Surveys Ltd.
The Medcan Clinic
Methanex Corporation
Michelin North America (Canada) Inc.
Mission Group Enterprises
Mitsubishi Canada Limited
Molnlycke Health Care
Montship Inc.
The Mosaic Company
NOVA Chemicals Corporation
Navtech Systems Support Inc.
Neovia Logistics Services
New Gold Inc.
Nike Canada Corp.
North American Palladium Ltd.
Northern Lights Canada
Novartis Pharmaceuticals Canada Inc.
Novexco Inc.
Novo Nordisk Canada
Nutreco Canada Inc.
Occidental Chemical Corporation
Orica Canada Inc.
Overwaitea Food Group LP

P & H MinePro Services
PPG Canada Inc.
PPG Canada Inc. - Industrial Coatings Division
PPG Canada Inc. - Performance Glazing Division
Pacific Rubiales Energy Corp.
Pan American Silver Corporation
Penske Truck Leasing
PepsiCo Canada
Potash Corporation of Saskatchewan Inc.
Praxair Canada Inc.
Purdue Pharma
Randstad Canada
Richemont Canada Inc.
Rio Tinto
Rio Tinto - Diavik Diamond Mines
Rio Tinto - Fer et Titane Inc.
Rio Tinto Exploration (Canada)
Rio Tinto Iron Ore
Rogers Communications Inc.
Rogers Foods Ltd.
Rolls-Royce Canada Ltd.
Rothmans, Benson & Hedges Inc.
Russel Metals Inc.
SABIC Innovative Plastics Canada Incorporated
SEMAFO inc.
SMS Equipment Inc.
Samuel, Son & Co., Limited
Sandoz Canada Inc.
Sasol Canada
Schweitzer Engineering Laboratories
Sennheiser Canada Inc.
SGL Canada Inc.
The Shaw Group Limited
Sherritt International Corporation
Shore Gold Inc.
Shred-it International
Siemens Canada Limited
Silver Standard Resources Inc.
Skretting
Smart Serve Ontario
Sofina Foods Inc.
Sojitz Canada Corporation
Solar Turbines Incorporated
Solenis LLC
Solvay Canada
Sopexa Canada
Staples Business Depot
Stelia Aéronautique Canada Inc.
Stelia North America
Stuart Olson Inc.
Sun-Rype Products Ltd.
Suncor Energy Inc.
TELUS Communications Inc.
TVI Pacific, Inc.
Takeda Canada Inc.
Teck Resources Limited
Teck Resources Limited - Highland Valley Copper
Teck Resources Limited - Trail Operation
Teekay Corporation
Tembec Inc.
Terratec Environmental Ltd.
Teva Canada Limited
Thompson Creek Metals Company
Tim Hortons Inc.
TNS Canada Ltd.
Tolko Industries Ltd.
Transocean Inc.
Umicore Canada Inc.
Unilock
uniPHARM Wholesale Drugs Ltd.
Uranium One Inc.
Vale Canada Limited
Valero Energy Inc.
Valmet Ltd.
Vanderlande Industries Canada Inc.
Viterra Inc.
Votorantim Cement North America
WD-40 Products Canada Ltd.
Wal-Mart Canada Corp.
Wartsila Canada Incorporated
Wellgreen Platinum Ltd.
Wescast Industries Inc.
Westmoreland Coal Company - Canada
Winners Merchants International L.P.
Yamana Gold Inc.

Appendix D – Cash Equivalent Values

Noncash Compensation

An organization's cost for a noncash program is subject to numerous variables, such as composition of the group, experience, funding method, skill of the buyer and a company's accounting practices. Thus, programs with identical formulae can have widely differing costs from organization to organization or even from unit to unit within an organization. However, the value of a noncash item to a particular employee is primarily dependent on the level of benefit, perquisite or time off provided, not on the average age of the employees in the organization or the method chosen by the employer to fund the program.

Therefore, standard cost assumptions were derived. For noncash items which are conditional on the occurrence of an event such as death, disability or continuous employment in an organization, the cash equivalent has been calculated on the basis of the probability of receiving such items, using appropriate actuarial assumptions. For noncash items such as cars, loans and subsidized meals, which have immediate value, the cash equivalent has been calculated on the basis of the most probable average current replacement cost.

Employee Contributions

Noncash compensation includes only the employer-paid value. Employee contributions are subtracted from the total value to obtain the employer paid amount.