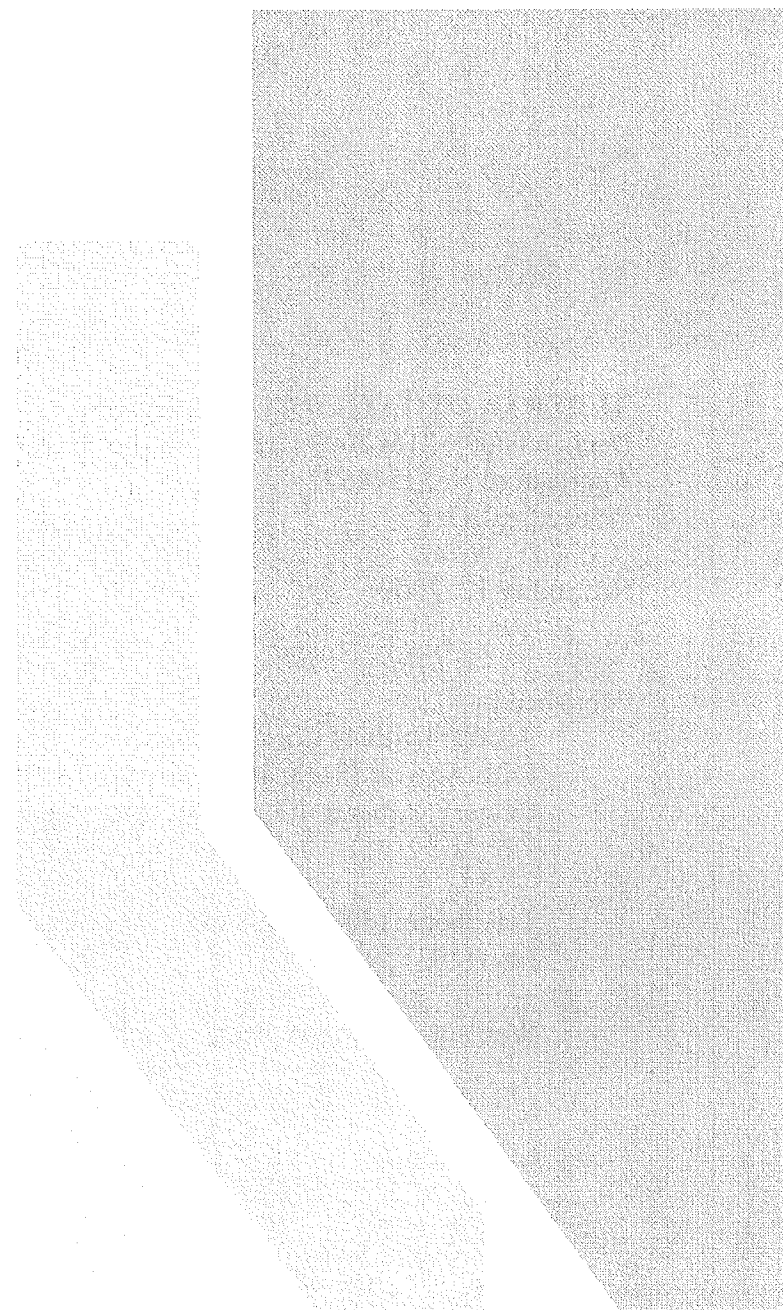


AUC

Alberta Utilities Commission

2009 Generic Cost of Capital

November 12, 2009



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2009 GENERIC COST OF CAPITAL

1 INTRODUCTION

1.1 Background

1. In Decision 2004-052,¹ (the Generic Cost of Capital Decision or GCC Decision) dated July 2, 2004, the Alberta Energy and Utilities Board (EUB or Board) established a single generic Return on Equity (ROE) for all utilities participating in the proceeding. It also adopted a formula approach for determining an annual generic ROE and set common equity ratios for each of the applicant utilities.

2. In the GCC Decision, the Board determined that it would seek the views of parties on whether the adjustment formula continued to yield a fair ROE prior to the establishment of the common ROE for the year 2009. The GCC Decision also established that the generic ROE could be reviewed prior to 2009 if the ROE resulting from the adjustment mechanism for years prior to 2009 was less than 7.6 percent or greater than 11.6 percent.

3. Further to the contemplated five year review of the adjustment formula the Alberta Utilities Commission (Commission or AUC) initiated a proceeding² on February 21, 2008 to determine whether the ROE formula and/or the common equity ratios should again be reviewed on a generic basis. All electric, gas and pipeline utilities regulated by the Commission were invited to participate in this preliminary proceeding. The Commission's Notice identified the following two issues:

- does the Generic Cost of Capital adjustment formula determined by the EUB in the GCC Decision continue to yield a fair ROE, (the Preliminary ROE Question); and
- should the capital structures for all applicable utilities be addressed on a generic basis (the Preliminary Capital Structure Question)?³

4. After considering the submissions of parties, the Commission issued Decision 2008-051⁴ on June 18, 2008, finding that there was sufficient evidence to warrant a review of the generic ROE level and adjustment formula and of utility capital structures. The Commission determined that capital structures would be considered on a utility-specific basis in a generic proceeding

¹ Decision 2004-052 - Generic Cost of Capital – AltaGas Utilities Inc., AltaLink Management Ltd., ATCO Electric Ltd. (Distribution), ATCO Electric Ltd. (Transmission), ATCO Gas, ATCO Pipelines, ENMAX Power Corporation (Distribution), EPCOR Distribution Inc., EPCOR Transmission Inc., FortisAlberta (formerly Aquila Networks) Nova Gas Transmission Ltd. (Application 1271597) (Released: July 2, 2004).

² Application No. 1561663, ID No. 15, Generic Cost of Capital – Preliminary Questions Proceeding.

³ Application No. 1561663, ID No. 15, Generic Cost of Capital – Preliminary Question Proceeding, Notice issued February 21, 2008.

⁴ Decision 2008-051 - Generic Cost of Capital – Preliminary Questions Proceeding, (Application 1561663) (Released: June 18, 2008).

All participating utilities and Other Utilities shall be considered as applicants in the 2009 GCC Proceeding.

6. The Notice was published in the four major daily newspapers in Alberta on July 29, 2008. In addition, the Notice was e-mailed to all parties involved in the Cost of Capital Preliminary Questions proceeding as well as to the Commission's contact lists for utilities proceedings.
7. A list of all participants who submitted a Statement of Intent to Participate (SIP) is set out in Appendix 1.
8. On July 25, 2008, in accordance with the Notice, the Commission issued a Preliminary Scoping Document and Preliminary Minimum Filing Requirements.⁹ A procedural schedule, Final Scoping Document and Final Minimum Filing Requirements was issued by the Commission on September 4, 2008.¹⁰
9. The schedule for the Application was amended a number of times throughout the proceeding. The final process followed by the Commission for the Application is set out below:

Table 1. Procedural Schedule

<i>Process Step</i>	<i>Deadline Date</i>
Participation Closing Date and Submission of Statements of Intent to Participate	August 14, 2008
Comments on Preliminary Scoping Document, and Preliminary Minimum Filing Requirements	August 14, 2008
Commission Issues Final Scoping Document and Final Minimum Filing Requirements	September 4, 2008
Utility Evidence Received	November 20, 2008
Information Requests to Utilities	January 6, 2009
Information Responses from Utilities	February 6, 2009
Intervener Evidence	March 2, 2009
Information Requests to Interveners	March 24, 2009
Information Responses from Interveners	April 14, 2009
Rebuttal Evidence	May 4, 2009

10. The Commission conducted a public hearing from May 19 to June 16, 2009, in the Commission's hearing room in Calgary. A list of parties who appeared at the hearing is included in Appendix 2. The Commission sat for a total of 21 hearing days.
11. By letter dated April 21, 2009¹¹ NOVA Gas Transmission Ltd. (NGTL) withdrew from the Proceeding in light of the National Energy Board (NEB) issuing a Certificate of Public Convenience and Necessity on April 15, 2009 for the continued operation of NGTL's Alberta System under federal jurisdiction and regulation effective April 29, 2009.

⁹ Exhibit 2.

¹⁰ Exhibit 36.

¹¹ Exhibit 261.

- Mr. James Coyne for the ATCO Utilities has expertise in financial, regulatory, strategic, matters and provides litigation support services to clients in the power and utilities industries.
- Mr. Aaron Engen for the ATCO Utilities is an investment banker specializing in energy infrastructure and is an expert in capital markets and mergers and acquisitions transactions.
- Dr. J. Stephen Gaske for the ATCO Utilities consults in financial and economic matters with regulated public utilities and pipelines and is also a cost of capital expert.
- Ms. Kathleen McShane for the ATCO Utilities has extensive background in financial and regulatory issues and is a cost of capital expert.
- Dr. John Neri for ENMAX Power Corporation is an economist and has provided testimony in various regulatory proceedings in the areas of cost of capital, cost allocation and rate design, market power and sales forecasts.
- Mr. Hugh Johnson for The City of Calgary is an expert in business risk and cost of capital.
- Dr. Lawrence Booth for CAPP and The City of Calgary is an expert in the areas of corporate finance, return on equity and capital structure.
- Dr. Andrew Safir for CAPP is an expert in economics and regulation.
- Mr. Marcus for the UCA is an economics expert with respect to electric and gas utilities.
- Dr. Kryzanowski and Dr. Roberts for the UCA are experts in finance, economics and utility rate of return matters.

In addition to these experts, numerous company and intervener witnesses appeared, as listed in Appendix 2.

17. In reaching the determinations contained within this Decision, the Commission has considered all relevant materials comprising the record of this proceeding, including the evidence and argument provided by each party. Accordingly, references in this Decision to specific parts of the record are intended to assist the reader in understanding the Commission's reasoning relating to a particular matter and should not be taken as an indication that the Commission did not consider all relevant portions of the record with respect to that matter.

1.3 Background to Generic Cost of Capital Approach Adopted in Decision 2004-052

18. The British Columbia Utilities Commission was the first regulator in Canada to adopt an ROE adjustment formula in June of 1994. In the fall of 1994, the NEB held the Multi-Pipeline Cost of Capital Proceeding (RH-2-94). In the RH-2-94 Decision the NEB also adopted a formula for adjusting the ROE on an annual basis. Subsequently, the Public Utilities Board of Manitoba adopted an ROE adjustment formula in May of 1995 and the Ontario Energy Board adopted a similar ROE adjustment formula in 1997. In Québec, the Régie de l'énergie has, since its decision D-99-11 of February 10th, 1999, applied a *de facto* generic ROE adjustment formula based on a Capital Asset Pricing Model (CAPM) with an annual adjustment based on the forecasted change in the risk-free return.¹⁴

¹⁴ Exhibit 132.02, Response to Information Request CAPP-Coyne-1(b).

1.5 Deregulation and Unbundling of Alberta Natural Gas Utilities

27. Natural gas distribution in Alberta has, for the most part, always been investor-owned, with the exception of a number of small municipal gas distribution systems, the largest being Medicine Hat, and several rural gas distribution cooperatives.

28. Two vertically integrated companies, Northwestern Utilities Limited (which included the gas portion of Northland Utilities Limited) and Canadian Western Natural Gas Company Limited, were amalgamated into ATCO Gas and Pipelines Ltd. in 1988. As a result, the distribution operations now make up the separately regulated ATCO Gas division. The smaller AltaGas Ltd. which is made up of the former Plains-Western Gas, then Centra Gas, and the former Bonnyville Gas Company, also provides predominantly distribution services.

29. During the 1980s it was possible for large gas consuming industries to procure their gas commodity from sources other than their gas distributor. By the late 1990s it was also possible for small retail and residential customers to procure gas under contract from gas marketers. The gas distribution utilities continued to be required to provide a regulated gas price to small retail and residential customers. In 2004, ATCO Gas contracted with Direct Energy Regulated Services, a business unit of Direct Energy Marketing Limited, to be its regulated default supplier.

30. NGTL (formerly Alberta Gas Trunkline Limited and now owned by TransCanada PipeLines Limited) was regulated by the Board and subsequently the Commission for decades, although initially on a complaint basis only. However, as noted above, effective April 29, 2009, NGTL came under federal jurisdiction and is now regulated by the NEB. The much smaller ATCO Pipelines (the transmission division of the amalgamation that resulted in ATCO Gas and Pipelines Ltd.) remains under the jurisdiction of the Commission.

1.6 Challenges

31. Restructuring of the industry into separate generation, transmission, distribution and retail functions, and the subsequent corporate restructuring among the companies that the Board regulated led to two challenges, both of which persist today. First, the number of companies for which a fair return must be established has increased due to the unbundling of the formerly integrated utilities. With this large increase in the number of regulated utilities, a generic approach to determining ROE and the adoption of an annual ROE adjustment formula was considered to be more efficient.

32. The second challenge followed from the fact that the Alberta regulated utilities no longer trade on the stock market as relatively pure-play regulated utilities. During the 1980s TransAlta traded on the stock market as a relatively pure-play regulated electric utility. Alberta Power was then (as now) owned by Canadian Utilities Inc., which also traded as a relatively pure-play regulated utility with electricity and gas distribution subsidiaries. At that time, the Board had relatively good visibility into investor reactions to the level of returns for the Alberta utilities it regulated. However, with the structural changes in the industry, the companies largely restructured into holding companies with subsidiaries or divisions in a number of industry sectors, each of which were (and still are) individually regulated on a stand-alone basis. Further complicating the task of regulating these subsidiary companies, some holding companies became increasingly involved in unregulated activities, sometimes outside of Canada, and the generation activities of the holding companies became deregulated. As a result, it was no longer possible to directly see the market response to awarded rates of return on the utilities as stand-alone

Table 2. Annual ROE Adjustment Formula Results

	2004	2005	2006	2007	2008	2009 If Continued
	(%)					
(a) 10-Year Canada Bond Yield - Consensus Forecast		5.05	4.55	4.15	4.50	3.85
(b) Spread of 30-year versus 10 year		0.50	0.23	0.07	0.05	0.51
(c) 30-Year Canada Yield Approved	5.68	5.55	4.78	4.22	4.55	4.36
(d) Change in 30-Year Yield Versus Prior Year		-0.13	-0.77	-0.56	0.33	-0.19
(e) 75% of (d)		-0.10	-0.58	-0.42	0.25	-0.14
Generic ROE	9.60	9.50	8.93	8.51	8.75	8.61

38. With respect to capital structure, the Board determined that setting an equity ratio is a subjective exercise that involves the assessment of several factors and the observation of past experience. In this regard, the Board found that the assessment of the level of business risk of the utilities is also subjective. Consequently, the Board considered that there is no single accepted mathematical way to make a determination of equity ratios based on a given level of business risk. The equity ratios approved by the Board in 2004 are set out in Table 11.

39. With respect to the adjustment of equity ratios, the GCC Decision indicated, at page 55, that it would be more appropriate to address future changes in capital structure in utility-specific rate proceedings. This reflected the view that a utility-specific approach is warranted in cases where the investment risks of a particular utility have changed materially for reasons specific to that utility. However, as discussed above, the Commission determined in Decision 2008-051 to also review capital structures in this Proceeding.

1.8 Placeholder for 2009

40. After canvassing parties, in a letter dated December 1, 2008, the Commission established a 2009 ROE placeholder for all utilities which had not already established a 2009 ROE by way of negotiated settlement or regulatory decision. The 2009 placeholder was set equal to the 2008 generic ROE of 8.75 percent.¹⁵ This placeholder is to be replaced by the 2009 ROE determination made in this Decision. The 2008 generic ROE percentage was used for administrative convenience given the time of the year and the fact that many utilities already had 2009 interim rates in place incorporating the 2008 ROE.

41. The annual adjustment formula adopted by the Board, and most other Canadian regulators using an ROE adjustment formula, is based on the financial concept that the required ROE for an investment encompassing any degree of risk includes a risk premium above the risk free rate of return. The risk free rate of return has generally been considered as the return just large enough to compensate an investor for the *expected* (as opposed to the actual) loss of purchasing power due to inflation over the term of the investment, plus an additional incentive amount for delayed spending, where there is absolute certainty that the initial investment and the return will be paid. In practice, the risk free rate has been the yield on long-term Government of Canada bonds (long Canada bonds).

¹⁵ Exhibit 64.

Government of Canada bond yields increased slightly during the fourth quarter of 2008, yields on A-rated corporate debt have increased dramatically during the same period following a steady widening of credit spreads during the second and third quarters. The impact on corporate credit markets has been so severe that, until very recently, there was virtually no activity in the long-term debt markets or the commercial paper markets. Figure 1.3a below shows the diminished levels of Canadian Corporate Issuances that has taken place recently compared to levels from January 2007.

At the same time, there has been a significant negative impact in markets for equity securities, as evidenced by the significant decline in the value and the increase in volatility of Canadian and global stock market indices (please refer to Figure 1.3b below). Since equity instruments are subordinate to secured debt instruments, the widening of longer-term credit spreads and the massive declines in stock prices during 2008 are clear indicators that investors require higher returns on equity to compensate for higher investment risks associated with equity instruments during the current crisis in global financial markets.¹⁷ (figures omitted)

47. AltaLink summarized its concerns by stating:

At a time when global capital markets are in crisis and fundamentally different from 2004, the compression between ROEs (as determined using the ROE Formula) and yields on investment grade utility senior secured debt is not reasonable and no longer makes economic sense.¹⁸

48. The utilities also suggested that government monetary policy has reduced interest rates to abnormally low levels in order to stimulate the economy. This action is reflected in the interest rates on government issued debt. They further suggested that an adjustment formula that is tied to long Canada bonds will not properly reflect a fair return on equity for utilities. The Commission notes the following exchange between counsel for the UCA and Mr. Coyne, an expert appearing for the ATCO Utilities:

Q. Now, on line 1 of page 4 you state: "Since the platform of the CAPM approach depends on the risk-free rate, which is normally the current or forecasted yield on a 10-year or 30-year government bond, the result produced by the CAPM approach are not reliable during periods when government interest rates are abnormally low."

Mr. Coyne, have you conducted any studies or analysis to determine what is a normal government interest rate, and how have you determined that government interest rates are abnormally low?

A. MR. COYNE: Well, I examined government interest rates going back over the last 50 years, and they are at record lows. I think there is substantial evidence in that regard. The last time we've seen rates this low in Canada I believe date back to the 1930s. So I think, certainly in my life time, these are the lowest government bond rates that we've seen, and I think there is substantial evidence on the record in that regard.¹⁹

¹⁷ Written Evidence of AltaLink Management Ltd., Exhibit 57.03, pages 6-8.

¹⁸ Written Evidence of AltaLink Management Ltd., Exhibit 57.03, page 10.

¹⁹ Transcript, page 604, line 20 to page 605, line 15.

awarding an ROE of 9.7 percent assuming a 40 percent equity ratio, or 11.2 percent assuming a 32 percent equity ratio.²¹

56. It is in this economic and regulatory context that parties to the Proceeding advanced evidence and argument on what combination of ROE and capital structure was required in order to produce a fair return on capital. This evidence included submissions on whether the annual change in the risk free rate as represented by long Canada bonds upon which the Board's ROE adjustment formula was based ever produced, or could continue to produce a fair return on capital. Further, if the validity of the formula was indeed in question, parties disagreed whether an economic recovery from the current economic crisis would restore the integrity of the formula.

1.10 Summary of Utilities' Positions

57. As noted above, the Commission was presented with a wide range of conflicting evidence and polarized opinions on how it should approach setting a fair return on capital for Alberta utilities for 2009. There was also significant disagreement on whether the Commission should set the fair return for 2009 only, or for 2009 and 2010, and whether it should abandon, amend, or replace its annual adjustment formula.

58. In general, the utilities argued that the annual adjustment formula should be modified or abandoned because Canadian equity investors require a risk premium in excess of the risk premium implied by the formula. In addition, the utilities generally proposed that the equity portion of their capital structures should be increased. The utilities advanced numerous arguments in support of these contentions.

59. On the strength of a number of analyses, the utilities argued that allowed rates of return on equity and allowed equity ratios awarded by U.S. regulators are both significantly higher for utilities of similar risk. They argued that the annual adjustment formula reduces the allowed ROE by a greater amount than has been the typical experience with U.S. regulators, when the yield to maturity on long-term government bonds declines, as it had during the credit crisis. Some utility experts also suggested that the volatility of returns on Canadian utility stocks now exceeds or approximates the volatility of returns on the Canadian stock market index as a whole. Accordingly, they argued the equity risk premium required in setting a fair return for Canadian utilities must now be higher than the equity risk premium implied by the annual adjustment formula. As a result, they argued, the annual adjustment formula produces a lower ROE estimate at a time when the increased risks of volatile economic and capital market conditions are causing capital costs to increase dramatically.

60. Commenting on the effects of the credit crisis on the bond market, Susan Abbott, an expert witness appearing for AltaLink stated:

This is not the bond market we have known for the last 15 years, and marks a "new normal." The deleveraging rate around the world is very high, and the effect of that on the overall worldwide economy is unknown. What it does imply, however, is lower levels of spending which will make economic recovery more difficult. In addition, what the

²¹ TQM Decision, National Energy Board, Decision RH-1-2008, Trans Quebec & Maritimes Pipelines Inc., Cost of Capital for 2007 and 2008, page 81, footnote 38.

We have at -- CU Inc. is the rated company within the group that does the debt financing for the ATCO utilities. CU Inc. is made out of ATCO Electric, ATCO Gas, and ATCO Pipelines as well as a company called Alberta Power 2000, which has our generation assets that were pre 1996 built that are in there and under PPAs [Power Purchase Arrangements].

There is evidence in this testimony that – in this hearing that shows the CU Inc. credit metrics are being cross-subsidized by the nonregulated PPA-driven AP2K. So what we're saying is without the level of return that we're asking for here, there is a question of whether the financial integrity of the utilities can be maintained and on a stand-alone basis, they're not contributing their fair share to the development of CU Inc.'s credit status.²³

67. To remedy the alleged defects seen in the allowed returns on the costs of equity in Alberta, the utilities proposed the ROEs and equity ratios set out in the following table.

Table 3. Utilities' Proposed ROE and Equity Ratios

	Recommended by Utility ²⁴ (%)	Recommended by Utility ²⁵ (%)
	Equity Ratio	ROE
Electric and Gas Transmission		
ATCO Electric TFO	38.0	10.5
AltaLink	38.0	11
ENMAX TFO	40.0	11
EPCOR TFO	40.0	11
ATCO Pipelines	43.0	12
Electric and Gas Distribution		
ATCO Electric DISCO	40.0	10.6
ENMAX DISCO	44.0	11
EPCOR DISCO	44.0	11
ATCO Gas	40.0	11
ATCO Gas for 2008 ²⁶	40.0	11
FortisAlberta	42.0(+ 2) ²⁷	11
AltaGas	46.0	11
Retailers		
EEAI	42.0	11

1.11 Summary of Interveners' Position

68. Interveners representing various customers of the utilities argued that there is considerable evidence that investors in utilities have enjoyed superior returns during the period for which the annual adjustment formula has been in place. Dr. Booth, for CAPP, stated:

²³ Transcript, page 1033, lines 1-15.

²⁴ ATCO Evidence, Exhibit 50.01, page 5, Dr. Vander Weide Joint Evidence, Exhibit 57.04, page 37, Dr. Vilbert, Exhibit 58.02, page 24, ENMAX Evidence, Exhibit 55.01, page 6.

²⁵ ATCO Evidence, Exhibit 50.01, page 5. (Also in ATCO Argument, Page 4), ENMAX Evidence, Exhibit 55.01, page 6, Vander Weide Joint Evidence, Exhibit 57.04, page 36, Vilbert AUI Evidence, Exhibit 58.02, page 24.

²⁶ ATCO Argument, Exhibit 390.02, page 98.

²⁷ 42.0 percent Recommended by Dr. Vander Weide, 44.0 percent Requested by FortisAlberta to account for its (temporary) non-taxable status.

these two jurisdictions results in substantive differences in the risk exposure of Canadian and U.S. regulated utilities. In fact, empirical analysis indicates that U.S. companies are subject to significantly greater degrees of regulatory and business risk.³⁰

71. Interveners recommended, as a result of their analysis, significantly lower ROEs and lower equity ratios for the test year than did the utilities. Intervener recommendations are set out in the table below:

Table 4. Intervener ROE and Equity Ratio Recommendations

	Recommended by UCA & CCA ³¹ (K&R) (%)	Recommended by Calgary ³² (Booth) (%)	Recommended by CAPP ³³ (Booth) (%)	Recommended by UCA & CCA ³⁴ (K&R) (%)	Recommended by CAPP & Calgary ³⁵ (Booth) (%)
	Equity Ratio			ROE	
Electric and Gas Transmission					
ATCO Electric TFO	33.0	<35.0		7.9	7.25
AltaLink	33.0	<35.0		7.9	7.25
ENMAX TFO	30.0			7.9	7.25
EPCOR TFO	30.0			7.9	7.25
ATCO Pipelines	42/34 ³⁶		37/33 ³⁷	7.9	7.25
Electric and Gas Distribution					
ATCO Electric DISCO	35.0			7.9	7.25
ENMAX DISCO	35.0			7.9	7.25
EPCOR DISCO	35.0			7.9	7.25
ATCO Gas	34.0	35.0		7.9	7.25
ATCO Gas for 2008	38.0 ³⁸				
FortisAlberta	35.0			7.9	7.25
AltaGas	40/37 ³⁹	40.0		7.9	7.25
Retailers					
EEAI	35.0			7.9	7.25

72. As can be seen from the above contextual overview and summary review of the positions of the parties in the Proceeding, the Commission has been presented with conflicting evidence from qualified experts, using a variety of analytical techniques, and in some cases the same techniques, to derive a range of recommended ROEs from 7.25 percent on an equity ratio of 33 percent, to 12 percent on an equity thickness of 43 percent, and 11 percent ROE on an equity ratio of 46 percent. The Commission was also faced with conflicting evidence on the nature, impact, and potential duration of the financial crisis. In the face of this conflicting evidence, the Commission was tasked with establishing a fair return for the companies it regulates.

³⁰ Revised Evidence of Dr. Safir, Exhibit 292.04, pages 3-4.

³¹ Evidence of Drs. Kryzanowski and Roberts, Exhibit 179.02, page 6.

³² Calgary Argument, Exhibit 386.02, pages 12-13.

³³ CAPP Argument, Exhibit 388.02, page 94.

³⁴ Evidence of Drs. Kryzanowski and Roberts, Exhibit 179.02, page 9.

³⁵ Booth Revised Evidence, Exhibit 292.03, pages 3, 86 and 112.

³⁶ 42.0 percent without NGTL Agreement, 34.0 percent with NGTL Agreement.

³⁷ 37.0 percent without NGTL Agreement, 33.0 percent with NGTL Agreement.

³⁸ UCA Argument, Exhibit 387.01, page 97.

³⁹ 40.0 percent without weather deferral account, 37.0 percent without weather deferral account.

Table 5. Approved Equity Ratios

Segment	Awarded Equity Ratio (%)
Electric and Gas Transmission	
ATCO Electric TFO	36
AltaLink	36
ENMAX TFO	37
EPCOR TFO	37
RED Deer TFO	37
Lethbridge TFO	37
TransAlta	36
ATCO Pipelines	45
Electric and Gas Distribution	
ATCO Electric DISCO	39
ENMAX DISCO	41
EPCOR DISCO	41
ATCO Gas	39
ATCO Gas for 2008	39
FortisAlberta	41
AltaGas	43
Retailers	
ECAI	39

79. The Commission has decided to suspend the application of the existing, or any, ROE adjustment formula. The Commission has set a generic ROE for 2009 and 2010 of 9.0 percent. The same ROE will be employed for 2011 on an interim basis.

80. The Commission examined several factors in applying the fair return standard in determining the ROE for 2009, including: Capital Asset Pricing Model (CAPM) results, Discounted Cash Flow (DCF) results, the Comparable Earnings Methodology, Return Awards by Other Regulators, Price-to-Book Ratios, Returns Available on High Grade Corporate Bonds, and the TSX Expected Market Return.

81. In 2011, the Commission will initiate a proceeding to consider the final ROE for 2011 and to consider whether to implement an annual ROE adjustment formula.

2 FAIR RETURN STANDARD

82. The authority and jurisdiction of a regulatory tribunal like the Commission to set rates for utilities is established by its governing legislation. The applicable pieces of legislation contain similar provisions that require the Commission to fix just and reasonable rates for the utilities that it regulates.⁴⁰ For example, the *Public Utilities Act* section 89 provides that the Commission may "... (a) fix just and reasonable ... rates ... which shall be imposed, observed and followed subsequently by the owner of the public utility....". The *Gas Utilities Act*, in a similarly worded section 36(a) also empowers the Commission to "fix just and reasonable ... rates," as does the *Electric Utilities Act* section 121(1)(a).⁴¹

⁴⁰ Retail electricity "regulated rate tariffs" and retail natural gas "default rate tariffs" are regulated by the Commission but are subject to specialized legislative provisions that are not addressed in this Decision.

⁴¹ See also Transmission Regulation A.R. 86/2007, as amended.

Once the separate rates of return on debt and equity are established, they are consolidated into a composite rate of return on capital, based on the relative amounts of debt and equity in the utility's capital structure. In order to account for varying levels of risk between pipelines, the Board constructs for each pipeline a capital structure, i.e. the relative portions of debt and equity capital needed to finance its prudently acquired assets plus its working capital, on the basis of expert evidence. The greater the risk attributed to each pipeline, the greater the required equity component of its capital structure. That is because bond investors, who are more risk averse than equity investors, will not lend funds to an enterprise unless there is sufficient equity capital invested in the enterprise to give them confidence that they will be able to recover their investment from the assets of the enterprise in the event of default. ...

.....

.... In cost of capital proceedings, the Board is entitled, on the basis of the evidence before it and the use of its own judgment, to choose a methodology for determining cost of capital and to estimate the cost of capital for a forthcoming year. Very often, the Board's estimate will not reflect the precise estimates of one side or the other or of one witness or another. Having regard to all the evidence, the Board will determine its own estimate.⁴⁶

86. This Proceeding does not deal with the cost of debt component of the cost of capital specifically, rather it is the cost of equity and capital structure aspects of a utility's cost of capital that are relevant to this Decision. Mr. Justice Rothstein provided some further guidance with respect to the parameters in which the regulator must exercise its judgment in determining the cost of equity:

To put the matter another way, when the cost of service methodology is used to determine just and reasonable tolls, if the Board does not permit the Mainline to recover its costs because it has understated the Mainline's cost of equity capital, the Mainline will be unable to earn a fair return on equity. The tolls will therefore not be just and reasonable from the Mainline's point of view. On the other hand, the tolls must also be just and reasonable from the point of view of the Mainline's customers and the ultimate consumers who rely on service from the Mainline. Therefore, customers and consumers have an interest in ensuring that the Mainline's costs are not overstated. As respondents' counsel pointed out, there are numerous costing issues that may be subject to challenge. Questions may arise about, among other things, the allocation of costs between the Mainline and other divisions of the appellant; whether costs have been, or are being, prudently incurred; and whether the Mainline's compensation plans are reasonable. And, specific to this appeal, customers and consumers have an interest in ensuring that the Mainline's cost of equity is not overstated.⁴⁷

87. The approach to determining a fair return on the equity component of invested capital in a regulated utility has ordinarily been referred to as the fair return standard. The fair return standard has been developed through case law, in particular three seminal decisions; the Supreme Court of Canada judgment in *Northwestern Utilities Ltd. v. Edmonton (City)*⁴⁸ and two decisions of the Supreme Court of the United States; *Bluefield Waterworks and Improvement Company v.*

⁴⁶ *TransCanada Pipelines Limited v. Canada (National Energy Board)*, 2004 FCA 149 (*TransCanada Pipelines*) at paragraphs 6-9 and 58.

⁴⁷ *Ibid.* at paragraph 34.

⁴⁸ [1929] S.C.R. 186 (*Northwestern Utilities*).

91. The Court qualified its ruling by noting that the company “has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures.”⁵⁷ What is required, however, is that:

The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit to enable it to raise the money necessary for the proper discharge of its public duties. A rate of return may be reasonable at one time and become too high or too low by changes affecting opportunities for investment, the money market and business conditions generally.⁵⁸

92. The Supreme Court of the U.S. revisited the question of what was a “fair rate of return” when it affirmed the rate of return allowed to a gas utility by the Federal Power Commission and noted that the purpose of the act governing gas utilities was “to protect consumers against exploitation at the hands of natural gas companies”.⁵⁹ The Court clarified that the act’s “ratemaking process”, which required the “fixing of ‘just and reasonable rates’”, involves the balancing of the investor and the consumer interests.”⁶⁰ The company’s investors, the Court explained, have “a legitimate concern with the financial integrity of the company whose rates are being regulated.”⁶¹ This means that there should “be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on the stock.”⁶² The Court then held that:

By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.⁶³

93. The Court also noted:

Under the statutory standard of “just and reasonable” it is the result reached not the method employed which is controlling.⁶⁴

94. The three cases can be summed up to hold that a regulator when setting a rate of return must consider three factors, namely ‘comparable investments,’ ‘capital attraction’ and ‘financial integrity.’ Indeed, the AUC and its predecessor boards have accepted and employed these judicial pronouncements for many years and have also recognized the need for weighing the three factors based on evidence before it. For example, in 1977 the Alberta Public Utilities Board quoted with approval the following expression of the three factors:

In developing his estimate of a fair return and a fair rate of return on common equity Professor Morrison stated that he had followed three “well known and widely employed” principles, namely,

⁵⁷ Ibid. at 692-693.

⁵⁸ Ibid. at 693.

⁵⁹ *Hope*, at 610 (1944).

⁶⁰ Ibid. at 603.

⁶¹ Ibid. at 603.

⁶² Ibid. at 603.

⁶³ Ibid. at 603.

⁶⁴ Ibid. at 602.

- enable the financial integrity of the regulated enterprise to be maintained (the financial integrity standard); and
- permit incremental capital to be attracted to the enterprise on reasonable terms and conditions (the capital attraction standard).

In the Board's view, the determination of a fair return in accordance with these enunciated standards will, when combined with other aspects for the Mainline's revenue requirement, result in tolls that are just and reasonable.⁶⁸

98. In looking at the judicial guidance, and past regulatory practices, the Commission concludes that these three tests are the three factors that must be considered and examined when determining the fair return. What constitutes a fair return, then, is matter of judgment for the Commission, guided by these three factors and exercised after weighing all of the evidence and argument provided by the record. This was clearly articulated by Mr. Justice Smith in *Northwestern Utilities*, by the U.S. Supreme Court in *Bluefield*⁶⁹ and in *Hope*,⁷⁰ by the Alberta PUB in 1977 and most recently by Mr. Justice Rothstein in *TransCanada Pipelines*.

99. While there appeared to be a general consensus among the parties with respect to the three factors constituting the fair return standard in this Proceeding, there were some differences of opinion about the exact application of the fairness standard. As Calgary stated in its Reply Argument:

There appears to be little disagreement between the parties regarding the standards for a fair return. Rather, it appears the disagreement is in the application of those standards and in the weight and probity of the evidence proffered by parties as to whether those standards have been met.⁷¹

100. On one hand, some of the parties seemed to assert that the test required that all three factors or tests be considered separately or were somehow independent. ATCO Utilities, as did other utilities,⁷² argued that "[t]he allowed return must satisfy all three requirements of the fair return standard: financial integrity, capital attraction and comparable investment returns."⁷³ This legal position seemed to be adopted by their financial and economic expert witnesses in their testimony. For example, the following exchange occurred between the Chair and Dr. Gaske:

Q. So looking at the three-part test, is it correct to say that if you have -- if you award -- if we were to award a rate of return that gave comparable earnings for comparable risk investments -- and let's say we accepted the U.S. evidence and we set it at that number, that we're automatically going to find ourselves in a situation where there's financial integrity assuming we have the comparable capital structure; but are we going to find ourselves automatically meeting the other two? Or is there a possibility that you could meet one of these but not the other two; or you could meet two and not the third one?

⁶⁸ NEB Decision RH-2-2004, Reasons for Decision, TransCanada Pipelines Limited, Phase II (Released: April, 2005).

⁶⁹ See note 19, *supra*.

⁷⁰ See note 63 *supra*.

⁷¹ Calgary Reply Argument, page 7.

⁷² See for example the Written Argument of AltaGas, Exhibit 384 at page 10, the Written Argument of EPC, Exhibit 385.02 at paragraph 18 and the Written Argument of EPCOR, Exhibit 382.02 at paragraph 25.

⁷³ ATCO Utilities Response to Undertaking at Transcript, pages 1556-1558, Exhibit 362.02 at page 2.

CAPP then makes the assertion that a return that is "meager" can still be fair. ...

....

The law requires that those returns be "as large a return" as it would receive on similar risk investments. CAPP's submissions in this respect must, therefore, fail. Dr. Booth's "meager" recommendations, therefore, fail to satisfy the Fair Return Standard.⁸⁰

105. The Commission does not agree that the *Hope* case stands for the proposition that meeting only two parts of the fair return standard can be sufficient. The Court in *Hope* observes that if the three part test as described in the quotation is met, the fact that it might result in meager returns on a "fair value" rate base (one that is based on a higher current cost valuation of rate base that was rejected by the Court rather than the historical cost rate base that was accepted by the Court) does not make the finding invalid. A "fair value" rate base is not the same as a historical cost rate base.⁸¹ *Hope* cannot stand for the proposition that meager returns that do not meet the three part test are sufficient to meet the fair return standard.

106. With respect to whether the three elements of the fair return standard is "three ways of looking at the same thing" as advocated by CAPP (among others) or three separate tests as advocated by the ATCO Utilities (among others) the Commission does consider that the three seminal fair return cases, as well as the observations of Mr. Justice Rothstein, all recognize that the three requirements of the fairness standard are inter-related. As Mr. Justice Rothstein observed, bond investors who are more averse to risk than equity investors will not lend funds to an enterprise unless there is sufficient equity capital invested. If the rate of return is not sufficient to allow equity investors in the utility the same return they could expect to earn if investing the "same amount in other securities possessing an attractiveness, stability and certainty equal to that of the company's enterprise" (the *Northwestern Utilities* comparability standard) a utility may not be able to attract sufficient equity investment in the enterprise without causing a dilution of the interest of present investors. As a result, it may be unable to attract sufficient debt investment at reasonable rates. Ultimately the company's financial integrity could be at risk which would harm shareholders and customers alike.⁸² Similarly, if the Commission conducted a separate examination of rates of return awarded by other regulators and awarded such returns to Alberta utilities without regard to the effect of that award on financial integrity or the ability to attract debt capital, or the relationship of that award to comparable returns available in the market (whether they be higher or lower), the result could be unfair (either to the company or to customers). As noted above, Mr. Justice Rothstein in *TransCanada Pipelines* reinforced this conclusion when he stated:

...if the Board does not permit the Mainline to recover its costs because it has understated the Mainline's cost of equity capital, the Mainline will be unable to earn a fair return on

⁸⁰ ATCO Utilities Reply Argument, paragraphs 57 and 59.

⁸¹ See Charles R. Phillips, *The Regulation of Public Utilities* 305-16 (Arlington: VA, 1988).

The Commission is required by its certain of its enabling legislation to employ a historical cost rate base. The *Hope* case was decided at a time when the regulators were considering arguments favouring fair value rate base assessments versus historical rate base assessments.

⁸² Mr Coyne referred to the impact of an unfair return by indicating that it would "...not provide sufficient financial metrics to satisfy the ratings criteria for an investment grade credit rating. Thus the return is deficient in meeting the minimum standards for financial integrity" and "...shareholders are left uncompensated for the increased risk associated with higher leverage." Written Evidence of Mr. Coyne, Exhibit 50.01, Section 3, page 70.

Q. Commissioner Lyttle: ...I was just wondering why do we all only have utility holding companies and no regulated -- pure regulated utility companies listed? Is there an obvious reason for that or just a genesis of the market? I was wondering if you had a comment on that?

A. DR. BOOTH: This has been a question I've been asked several times. Why is it that a regulated utility is more valuable part of a holding company than standing on its own? And my strong suspicion is that a freestanding regulated utility we wouldn't have the problem of looking at all the financial parameters through a dirty window. We would see directly how the market values the equity. We would see directly how the bond holders value the debt claims they've got on the firm; and you, as the regulators, could directly see what happens.

The fact that we don't have any, and as I mentioned in my undertaking to Mr. McNulty, since I've been testifying we've seen the disappearance of a large number of pure regulated utilities. We've even seen -- we used to have a gas sub index, an electric sub index, a telco sub index on the old Toronto Stock Exchange 300. So even amongst the holding companies of gas, electric and pipeline companies and telco companies, you could get a better idea than now, but we lost Maritime Electric which was a pure electric utility on Prince Edward Island. We lost Island Tel in the same province. We've lost a lot of pure regulated utilities.

In economic and financial terms, these are good firms to build a holding company around because they're stable companies generating huge amounts of cash flow generally if they're not sort of expanding their rate base.⁸⁵

111. The fair return standard is a standard that was developed initially to provide guidance to regulators of stand-alone public utilities. At that time, generally, these utilities issued debt and equity directly to the capital markets and the market expectations were reasonably observable. Today the information required to make the judgments necessary to apply the standard to the utility operations is obscured by the presence of holding companies with a number of different businesses including unregulated businesses operating in competitive markets. This is the case not only in Alberta and other provinces but also in much of the United States. As a result, the Commission is left with the task of applying the fair return standard to Alberta utilities as if they were standing alone in the market, but with very little stand-alone evidence. A great deal of conflicting expert opinion on how to distill the vast amounts of primarily holding company evidence from Canada and the U.S. to determine a fair return for stand-alone utilities was presented in this proceeding.

112. Further complicating the determination of a fair return for Alberta utilities is the circularity created by a comparison of rates of return awarded to Canadian utilities on the basis of a formulaic approach and the significant percentage of government-owned utilities in Canada. As a result of these difficulties, utility companies urged the Commission to consider U.S. data on allowed rates of return and capital structure as well as U.S. market based returns in determining a fair return for Alberta utilities. Mr. Coyne, appearing for the ATCO Utilities stated:

In Canada, the majority of utilities are bound by the same ROE formula, as are the utilities in Alberta, which is linked to the change in government bond yields. To evaluate the fairness of those ROE awards by looking to other Canadian utilities is analogous to looking in the mirror to compare your appearance to the reflection's. The potential for circularity of such a benchmarking analysis renders it, for the most part, meaningless as an independent source of comparability. Further, Canadian regulators have expressed

⁸⁵ Transcript, page 3544, line 7 to page 3545, line 11.

Table 17: 2007 Consolidated Returns on Equity

	Canadian Utilities	Emera	Enbridge	Fortis, Inc.	TransCanada
ROE	15.96%	10.93%	14.53%	9.66%	13.99%

The above returns on equity reflect what investors consider as they weigh the risk of these investments. These consolidated returns are commensurate with low-risk industrial companies shown earlier in my analysis. However, these returns are well above those allowed for regulated utilities in Alberta and thereby imply that the ability of the utility to attract new equity capital is aided by the diversification and higher returns of its parent.⁸⁸

117. The utilities suggested that awarded returns, allowed capital structures and market based returns in the U.S. should carry significant weight in the Commission's deliberations despite certain regulatory differences, the few stand-alone utilities in the U.S. and the fact that many U.S. utilities remain vertically integrated (having generation, transmission, distribution and retail functions in the same corporate structure, unlike Alberta). The comparison to U.S. utilities is valid, experts for the utilities submitted, provided properly screened proxy groups are used in making comparisons. Mr. Coyne described his approach:

I have developed estimates of generic cost of equity and recommended capital structure for Alberta's utilities based on the analysis I have conducted of electric, gas, and pipeline proxy groups, and the broader assessment of Canadian and U.S. utilities and their operating environments. These findings are summarized below. On balance, my recommendations are based on a synthesis of a considerable amount of financial, macroeconomic, industry and corporate information. I have factored in the differences between Canadian and US operating and financial environments through the careful selection of proxy groups, and utilization of Canadian specific data as appropriate. Additionally, I have considered the differences between the Alberta and Canadian operating and financial environments.⁸⁹

118. In written Argument, the ATCO Utilities submitted that the fair return standard must be assessed in relation to a proxy of similar risk investments which includes U.S. as well as Canadian utilities like those included in the proxy groups selected by their expert, Mr. Coyne.

As more fully detailed below, at the heart of that Fair Return Standard is the requirement that the regulator consider a proxy of similar risk investments from the universe of potential investments. Failure to consider, or even identify, a risk-adjusted proxy offends the legal requirement for determining a fair return. A comparison to that universe of other potential investments, without first differentiating those of comparable risk, is invalid. By its nature, the specification of similar risk companies requires the exercise of judgment. Since the derivation of similar risk companies from the universe of all potential equity investments is what the law requires, a proxy group of representative investments must be identified as a threshold step to the setting of a fair return. Careful comparison of the risk of each Alberta utility on a stand-alone basis relative to these similar risk benchmarks must be undertaken. It must be borne in mind, however, that "comparable" does not mean "identical".⁹⁰

⁸⁸ Written Evidence of Mr. Coyne, Exhibit 50.01, Section 3, pages 73 and 74.

⁸⁹ Written Evidence of Mr. Coyne, Exhibit 50.01, Section 3, pages 80-81.

⁹⁰ ATCO Utilities Argument, Exhibit 390.02 at page 15.

legislation, public and regulatory policies, the higher prevalence of longer-term settlement arrangements, the federal/state jurisdictional divisions, the development of RTOs and other differences in the structure of regulated industrial sectors, and differences in national fiscal, tax and monetary policies. The Board notes AltaLink acknowledged that there are some differences in the Canadian and US electric industry structures that may impact some of the higher return and equity component awards in the U.S.

Furthermore, the Board notes the recent acquisitions, at premiums to book value, by US companies of an interest in TransAlta Corporation's former distribution and transmission businesses. The Board considers these acquisitions, which are discussed further below, may be an indication that the regulated returns available in Alberta are not too low for US firms, relative to investment opportunities in their home country given all relevant circumstances.

Directionally, the evidence on the awards available to US utilities would support a 2004 ROE above the Board's CAPM estimate. However, the Board concludes that limited weight should be placed on this evidence due to the differences in the regulatory, fiscal, monetary, and tax regimes in the two countries.⁹³

125. The utilities in this proceeding have forcefully asserted and have led expert evidence to show that the Board's reservations in Decision 2004-052 about the applicability of U.S. awarded rates of return to the determination of rates of return for Alberta utilities no longer apply. Moreover, the utilities have pointed to the NEB's TQM Decision as support for their positions. The interveners just as forcefully asserted and also led expert evidence that a change from the EUB's findings is not warranted. This sharp dichotomy of views provides a framework for a determination by the Commission of the applicability of U.S. return data in assessing a fair return for Alberta utilities. In the subsequent subsections of this Decision the Commission will review the following matters:

- What is the applicable market in which to assess the fair return standard for Alberta utilities?
- The comparability of business risk, including regulatory risk, of U.S. and Alberta utilities.
- Can U.S. utility allowed or market based return data be utilized in determining a fair return for Alberta utilities?
- Consideration of the findings of the NEB in the TQM Decision, with respect to the use of data on U.S. utility returns.

3.1 What is the Applicable Market in Which to Assess the Fair Return Standard for Alberta Utilities?

126. Alberta utilities must be able to attract capital, maintain financial integrity and have the opportunity to earn the return that they would receive on alternative investments of comparable risk. The question becomes, what is the applicable market in which to assess these elements of the fair return standard. All parties concede that there has been an increasing trend toward globalization of the world economy and an increased integration of North American markets. They disagree on, however, on the extent and implications of these developments.

⁹³ Decision 2004-052, page 26.

were very interested in Nortel and JDS Uniphase ten years ago because they were sort of unique. They are not particularly interested in utility stocks. So it's not as if the markets are completely integrated or completely segmented. They are partially integrated, partially segmented, and the most segmented part of the Canadian capital market are the very small stocks and stocks like utilities.⁹⁴

129. The Commission agrees with the observations of Dr. Booth. While increased globalization and reform of tax and investment policies has increased the flow of capital across borders, the investment market for both Alberta regulated utility equity and debt remains almost entirely in Canada. With respect to the likelihood of Canadian investors looking for investments of a similar risk to Alberta utilities the Commission notes the observations of Dr. Booth in the following exchange with Commission Counsel:

Q. Shouldn't, then, the returns on US utilities be a factor that this Commission should be very careful in terms of considering, in weighing the overall options that are available for Canadian investors?

A. DR. BOOTH: No, because those returns that are allowed in the United States are factored into the prices of the utility holding companies in the United States. So the only way Canadians can access those rate of return is by paying the market price, and Canadian investors are going to look at that and say well, they've got to say 11, 12, percent rate of return but I'm having to pay two, three times book value and I'm exposed to the bigger regulatory risk. And I may to decide -- some people may decide they are going to make that investment, but all I'm saying is that if they are going to invest and take the foreign exchange risk and take the tax impediments, they are more likely to invest in pharmaceutical stocks, consumer discretionary stocks, which we don't have in Canada, than they are in utilities.

There is always a global market for investment and there always has been. The question is what is the value of the imperfections, the frictions that disrupt these portfolios? And despite all of the relaxation of these barriers, investors portray what we call a home bias. Even the Americans have vastly more percentage in American stocks than American stocks account for in a world portfolio.

Every single domestic market investors, by and large, suffer what we call this home bias, that they predominantly invest in the stocks in their own market. Part of it is familiarity. We even find regions in the United States that have a reasonable bias because the people are familiar, they are comfortable with it as well as these other barriers that we talk about.

130. While Canadian investors are now freer to invest anywhere in the world where they can maximize their return for comparable risk, the Commission agrees with Dr. Booth that Canadian investors considering investing in a regulated utility (assuming markets are efficient and priced for risk) are more likely to invest in Canadian utilities in order to achieve their expected return than in utilities outside Canada given the foreign exchange risk and possible tax differences that they would not be exposed to if they invested in Canada.

131. Support for these findings can be found in several statements from witnesses appearing on behalf of AltaLink and the ATCO Utilities with respect to their respective companies' preference to issue debt and equity in Canada.

132. The CFO for AltaLink, Mr. Bronneberg, had the following exchange with Commission Counsel:

⁹⁴ Transcript, page 3386, lines 24 to page 3389, line 15.

returns (foreign exchange and tax consequences aside) for investments in securities of similar risk. Accordingly, while there may be some degree of home bias on the part of the relevant investors as described by Dr. Booth and some concerns to individual investors related to foreign exchange and tax consequences, Alberta regulated utilities must, on a risk-adjusted basis, compete for their capital requirements with alternative investments of comparable risk across North America. Therefore, U.S. information on U.S. utility returns is relevant to a determination of the fair return for Alberta regulated utilities. If Alberta utilities must compete for investment across North America, the returns available to investors must be competitive enough to attract capital in order to ensure their financial integrity as a going concern.

136. While the Commission will accept U.S. data on rates of return, it is necessary to consider whether a distinction should be made between U.S. utility data on returns awarded by regulators (allowed returns) and U.S. data on expected market-based returns before considering the data as part of an examination of the fair return for Alberta utilities.

3.2 The Comparability of Business Risk, Including Regulatory Risk, of U.S. and Alberta Utilities

137. In order to determine the applicability of U.S. allowed return and expected market based return data the Commission must first examine whether the business risk, including the regulatory risk, of utilities in the two countries is similar enough to permit such a comparison. An investor's perception of business risk, including regulatory risk, of a regulated utility will be largely determinative of the return required by the market before an investor will invest in that utility. An assessment of the business and regulatory environment influences the perceived relative risk of a regulated utility compared to a utility in either a different business or regulatory environment and accordingly the comparability of their market returns.

3.2.1 Comparability of U.S. and Canadian Utility Business Risk Other than Regulatory Risk

138. In the Final Scoping Document⁹⁸ the Commission referred to the following definition of Business Risk:

Business risk encompasses all the operating factors that collectively increase the probability that expected future income flows accruing to investors may not be realized, because of the fundamental nature of the company's business.⁹⁹

139. Drs. Kryzanowski and Roberts refer to three main categories of business risk for utilities: market, operational and regulatory.¹⁰⁰

140. Mr. Coyne noted:

Operating or business risk represents the variability in company earnings that might occur due to changes in demand, costs of raw materials and labor, operating leverage, management's ability to execute its business strategy, competition for market share, and obsolescence of plant and equipment.¹⁰¹

⁹⁸ Exhibit 36.01.

⁹⁹ *New Regulatory Finance* by Roger A Morin, Public Utility Reports Inc., 2006, page 38.

¹⁰⁰ Evidence of Drs. Kryzanowski and Roberts, Exhibit 179.02, page 18.

¹⁰¹ Written Evidence of Mr. Coyne, Exhibit 50.01, Section 3, page 41.

regulatory proceedings, and ultimately would not result in a material difference in the investors' required rate of return for U.S. and Canadian utilities on the basis of national origin alone.¹⁰⁵

146. The interveners submit that the Board made the correct decision when it discounted the usefulness of all American return information in Decision 2004-052. Intervenors maintained that the Canadian regulatory environment is far more supportive of Canadian utilities than is the case in the United States. Alberta's proactive and supportive regulatory regime which reviews and sets rates generally every one to two years, the greater use of deferral accounts, legislative protections for electric transmission infrastructure development, the annual adjustment of rates under many negotiated settlement agreements and the rare disallowance of incurred capital or operating expenditures on the basis of a lack of either prudence or need, all substantiate this position.

147. Intervenors also point to differences between Alberta and U.S. jurisdictions which respect to frequency of rate proceedings, length and frequency of negotiated settlements, integration of regulated and unregulated businesses, variability of earnings, the use of historical test years, the mix of utility segments or functions within a single regulated utility, currency and tax regimes, and the preference for the DCF method by U.S. regulators in determining utility returns as suggesting that U.S. utilities are subject to higher regulatory risk and therefore investors would expect higher returns. The intervenors conclude that U.S. return data can not be used in any material way in setting a fair return for Alberta utilities.

148. Both intervenors and the utilities appear to agree that there are many similarities in the regulatory principles employed in the U.S. and Canada. They also agree that there are regulatory differences between the U.S. and Canada. Where they are apart is with respect to the implications of these differences on the regulatory risk of U.S. utilities. The utilities consider any such differences are immaterial to the reliance of U.S. allowed returns in determining a fair return for Alberta utilities. The intervenors disagree that these regulatory differences are sufficiently immaterial so as to permit a direct comparison of allowed returns. The Commission will explore these various differences in order to determine the impact to the risk faced by U.S. utilities when compared to Alberta utilities and therefore impact the comparability of their allowed returns.

3.2.2.1 Regulatory Philosophy

149. Mr. Coyne stated the following in his evidence with reference to the fairness deficit he identified between U.S. and Canadian awarded returns:

Some argue that Canada's utilities are less risky or that the regulatory environment is more supportive as a basis for this gap. I have examined the operating and financial characteristics of the utility companies, the regulatory regimes in which they operate, the macro-economic environment, and the ability of utilities to recover expenses and adjust revenues in the U.S. and Canada. The results of this analysis repeatedly indicate that there is sufficient basis for comparison between the two countries and in my view, there are no appreciable differences in regulatory risk, financial risks, operating characteristics, tax structure, legislation, oversight, or in the frequency of ROE decisions that would justify the disparity that currently exists between the U.S. and Canadian ROE awards.¹⁰⁶

¹⁰⁵ ATCO Utilities Argument, Exhibit 390.02, pages 63-64.

¹⁰⁶ Written Evidence of Mr. Coyne, Exhibit 50.01, Section 3, pages 4-5.

embraced their new plan without fully understanding its ramifications and effect on industry and consumers. As a result, the two largest electricity LDCs were left drastically vulnerable to market manipulation by wholesale power generators. This led to bankruptcy for PG&E and widespread disruption in the provision of electrical services within the state during the 2000-2001 period.¹¹⁰

153. Mr. Coyne on behalf of the ATCO utilities suggested that events like the bankruptcy of PG&E in 2001 and the disallowance and deferral of hundreds of billions of dollars of stranded costs with the nuclear power industry in the 1970s and 1980s are examples of “rare events that could also occur in Canada” and that these “isolated instances are not sufficiently common to distinguish between U.S. and Canadian regulatory risks.”¹¹¹

154. Dr. Safir suggested that these examples of regulatory risk should not be discounted as historical aberrations and that they remain present in the risk assessment and return expectations of future investors. To illustrate this point, Dr. Safir referred to the “The Black Swan” event reference first discussed in testimony by Mr. Engen and explained by Dr. Gaske as follows.

...about a year ago there was a best selling book called "The Black Swan," and it was a best seller in finance circles. I don't know that it was a best seller in the general population, but it did make it into the book stores. And the idea behind "The Black Swan" is that people who looked backwards at risk and they try to measure it with the statistical methods, invariably miss the big things because the big things aren't things that you're expecting to happen, the things that come along that you don't really know about.¹¹²

155. Dr. Safir referred to and expanded on the Black Swan concept in his opening statement:

Contrary to what you have been told, a black swan is not solely a future event. It is an outlier, which once experienced, can never be ignored as a future probability. It has a permanent impact on business risk. And here, once again, the higher incidence of such recent catastrophes as the financial market collapsed and utility bankruptcies in the United States is clear evidence that the U.S. regulatory policies create a framework where extremes are more likely to occur.¹¹³

156. The Commission agrees with Mr. Coyne, Dr. Vander Weide and the other proponents in the proceeding who suggest that the regulatory framework and the regulatory philosophies of both the U.S. and Canada are similar. The Commission agrees, however with Dr. Safir that there have been some significant differences in regulatory policy between the U.S. and Canada which have created additional regulatory risk for American utilities. The Commission further agrees that disallowances in the U.S. have had significant impacts on investor confidence and risk perceptions that once such events have occurred they will have ongoing effects on future investor expectations. While Mr. Coyne did not change his position that large disallowances in the U.S. were insufficient to distinguish regulatory risk between Canada and the U.S., he did observe in an exchange with counsel for CAPP, the following:

So I think that without that, utilities are subject to risk. There are legitimate business risks associated with being in this business, and sometimes things do go wrong, as evidenced

¹¹⁰ Revised Written Evidence of Dr. Safir, Exhibit 292.04 at pages 19-20.

¹¹¹ Written Evidence of Mr. Coyne, Exhibit 50.01, Section 3, page 54.

¹¹² Transcript, page 803, lines 11-21.

¹¹³ Transcript, page 3155, lines 7-15.

return for Alberta utilities. As a consequence, the Commission is left with data relating to proxy groups involving smaller, mostly local, gas and electric distribution companies to consider.

3.2.2.3 Differences in Regulatory Practices

160. The Commission notes the attributes of utility regulation in Canada as enumerated by Dr. Booth which serve to reduce regulatory risk for Canadian utilities:

The history of regulation in Canada is that when risks arise to potentially cause losses to utilities they are invariably transferred to rate payers as part of the dynamics of regulation. This dynamic is illustrated through:

- the adoption of forward test years;
- the removal of the commodity charge through fuel pass through for LDCs;
- the removal of the merchant function;
- the adoption of weather related deferral accounts;
- increasing focus on the core service where the utility has market power;
- the reduction in regulatory lag;
- increased fixed charge component in rates
- the adoption of ROE formula adjustments;
- review of depreciation studies when stranded asset risk changes;
- flexible hearings to review unique risks.

All these policies have served to reduce the risk of regulated utilities in Canada. The fact is that regulation is a flexible process that moderates or shares these risks even if they do materialize to the extent that the regulated utility is rarely hurt. A case in point is Pacific Northern Gas (PNG), which I regard as the riskiest regulated utility in Canada.¹¹⁶

161. Mr. Coyne suggested in his evidence that many of the above features of Canadian regulation can also be found in the U.S.¹¹⁷ Ms. McShane had the following discussion with Commission Counsel on this topic:

Q. But in terms of comparability, I'm trying to figure out if you're suggesting that the US has moved more to be Canadian-like or Canadians have become more American-like; if that helps?

A. MS. McSHANE: Well, I think that American utilities have probably adopted more -- additional mechanisms since 2004 than Canadian utilities have, in the aggregate.

Q. So how does that enhance the comparability of the two?

A. MS. McSHANE: Because I don't think that you could say today that there is a significant difference, material difference, in the degree of protection.

Q. So, again, it sounds like you're suggesting that the American utilities have adopted mechanisms to reduce their risk that make them more like Canadian utilities in terms of deferral accounts and protections that they have available to them; is that what you're saying?

A. MS. McSHANE: Yes, if I looked at the trend in the US, I would say there had been a trend over the past five years to adopting revenue decoupling; more adoption of weather normalization; adoption of riders to automatically add new plant to the rate base.¹¹⁸

¹¹⁶ Revised Evidence of Dr. Booth, Exhibit 292.03, pages 65-66.

¹¹⁷ Written Evidence of Mr. Coyne, Exhibit 50.01 Section 3, starting at page 54.

¹¹⁸ Transcript, page 1742, line 7 to page 1743, line 2.

164. In response to questions from counsel for CAPP Mr. Frehlich described his understanding of the protections provided to Alberta TFOs by section 42 of the *Transmission Regulation*¹²¹ passed pursuant to the *Electric Utilities Act*:

Q. So in that respect, AltaLink is special, if I can put it that way, in that it's treated somewhat differently than the non-TFO utilities before this Commission?

A. MR. FREHLICH: I'm not going to speak for other utilities in front of the Commission. Our situation is as we've provided in our evidence around our credit metrics, and so as it relates to our credit situation, yes, we would see section 42 as providing the Commission with guidance around ensuring that we as a TFO in our situation have a stable investment climate and a steady stream of capital, especially through this build. And for us a stable investment climate relates to maintaining our A rating as we go forward through this build.

165. The Commission also notes that Mr. Coyne did not undertake a specific review of Alberta legislation before preparing his evidence and making his conclusions on the comparability of risks between U.S. and Alberta utilities as reflected in the following exchange with Commission Counsel.

Q. Sir, I'm not quite sure I got the answer to half of the question. That is, did you look at the Alberta legislation?

A. MR. COYNE: I did not specifically examine pieces of Alberta legislation. I had considerable discussion with the ATCO utilities, their representatives.

I have been working with the Alberta AESO for some -- over a period of time in the context of WECC [Western Electricity Coordinating Council]. So I was aware of what the electric transmission policies and procedures were within WECC and within Alberta.

So I would say it was more of a combined collection of analysis, expertise of those in the ATCO utilities in our team that we brought to bear.¹²²

166. The Commission does not consider the fact that the actions of the utility in administering a deferral account must be prudent or that it must prudently manage its project costs materially alter the protections against business risk afforded to a utility in Alberta. Although, both Mr. Coyne and Ms. McShane have suggested that many of the deferral account provisions such as purchased gas adjustments, fuel cost recovery mechanisms, purchased power contract adjustments and weather normalization provisions afforded to Alberta utilities have some degree of corresponding protections in the proxy group of U.S. utilities, a thorough comparative analysis of the various deferral accounts and legislative protections available to Alberta utilities was not undertaken in support of this position. The Commission considers that there is ample evidence to demonstrate that the support provided by the legislative and regulatory context in Alberta materially reduces regulatory and other business risks of Alberta utilities when compared to the evidence proffered on U.S. utilities in this proceeding.

167. With respect to some of the additional attributes referred to by Dr. Booth and their use or lack thereof in the United States, the Commission notes the following exchange between Mr. Marcus appearing for the UCA and Commissioner Michaud:

¹²¹ AR 86/2007, as amended.

¹²² Transcript, page 1147, lines 6-17.

reasons for higher awarded ROEs in the United States. These conclusions are affirmed by the Commission's analysis with respect to credit metrics and bond ratings discussed below.

3.2.2.4 Credit Metrics and Bond Ratings

169. Mr. Coyne indicated that his research had shown that Canadian utilities generally have higher embedded debt costs and lower interest coverage ratios, despite having higher credit ratings compared to U.S. counterparts.¹²⁵ The higher embedded debt costs and lower interest coverage ratios flowed from the higher financial risk associated with the existing capital structures of Canadian utilities.¹²⁶ Mr. Coyne also noted that several utilities have insufficient financial metrics to support the credit rating that they had been given¹²⁷ and that some credit rating agencies maybe questioning the viability of some existing credit rating.¹²⁸ The ATCO Utilities conclude in their written evidence:

...the evidence is clear that the individual ATCO Utilities could not maintain A credit ratings on a stand alone basis. The evidence indicates that it is the financial profile of Alberta Power 2000 which is the force behind the credit ratings of CU Inc. and which subsidizes the Utilities and thereby the financial risk of CU Inc.¹²⁹

170. The concern about higher risk and shaky credit ratings for Canadian utilities was challenged by the interveners. In his opening statement, Dr. Safir summarized the differences in risk in the following manner:

No one denies that allowed returns in Canada are below those awarded by US regulators, but it is simply inaccurate to infer from this that Canadian utilities do not receive returns commensurate with the risks that they face. The Canadian regulatory structure is simply more committed to insulating Canadian utilities from market forces. It provides more protective regulatory oversight. As a result, allowed returns in Canada should be lower than those in the United States.

You have also heard that the basic regulatory model is similar in the United States and Canada. I would agree with that. However, it is important to realize that the application of this general regulatory model differs substantially between the two countries. The US system is more "hands off" at the federal level. It is more fragmented at the state level, and it is more experimental at both levels. These differences manifest themselves in straight forward and readily observable differences in the financial circumstances of Canadian and US utilities.

You don't need to be a rocket scientist, you don't need to be a finance professor, and you don't even need to be an economist to notice these differences. One obvious one is the credit ratings afforded to Canadian utilities compared to US utilities. On average, Canadian utilities receive higher credit ratings than their US counterparts. This is exactly what you would expect if Canadian utilities faced lower business risks.¹³⁰

"In the regulatory arena, in the United States before the various federal and state commissions, the DCF method is overwhelmingly favoured. In Canada, it's overwhelmingly not favoured. The capital asset pricing model seems to hold greater favour in Canada."

¹²⁵ Written Evidence of Mr. Coyne, Exhibit 50.01, Section 3, page 49.

¹²⁶ Written Evidence of Mr. Coyne, Exhibit 50.01, Section 3, page 49 and 51.

¹²⁷ Written Evidence of Mr. Coyne, Exhibit 50.01, Section 3, page 71.

¹²⁸ Written Evidence of Mr. Coyne, Exhibit 50.01, Section 3, page 55.

¹²⁹ Written Evidence of the ATCO Utilities, Exhibit 50.01, Section 1, page 6.

¹³⁰ Transcript, page 3153, line 21 to page 3154, line 9.

utility equity returns. This could be due to the imposition of a formulaic ROE in Canada, which is based solely on changes in the government long-bond yield that is not subject to broader market influences, unlike the returns for U.S. utilities which are set through application of various ROE estimation techniques such as the DCF and CAPM. Generally, a lower beta translates to lower risk for a diversified investor, in that returns of the subject company are more likely to move counter to the overall market and thereby provide a hedge against systematic market risk. However, there are several causes of low beta: illiquidity, irregular business cycle, constant earnings, or irregular earnings fluctuations, which will lower investor risk in the context of an investment portfolio, but may not represent intrinsically lower risk assets.¹³⁶

177. Drs. Kryzanowski and Roberts dispute the conclusions drawn by utility experts with respect to the lower betas in Canada. In a discussion with Commission Counsel, Drs. Kryzanowski and Roberts referred to the lower interest coverage ratios in Canada discussed in Dr. Vander Weide's evidence¹³⁷ and the implication of lower betas in Canada.

A. Dr. ROBERTS: ...So what Dr. Vander Weide's evidence is telling us is that in the States the utilities use less debt and, therefore, they have higher coverage ratios than utilities in Canada that have the same ratings. The utilities in Canada use more debt and they have lower coverage ratios. So why is that? Why do the rating agencies give the same rating to a utility with more debt in Canada than they would to a utility in the States with a same amount of debt? It must be that the rating agencies are seeing something that Dr. Vander Weide is not. And in our view what they're seeing is there's another component to risk besides their risk of the financial structure and that's the business risk. As we discussed yesterday, due to the regulatory environment in Canada, the business risk is lower. So the rating agencies look at the US utilities and say, yes they have higher coverage ratios, yes they have less debt than their Canadian counterparts. We're going to give the Canadian Utilities the same rating because we recognize they have lower business risk.

A. DR. KRYZANOWSKI: In fact, you could go one step further. If you then compare the betas, the measure of systematic risk, the betas are lower in Canada than they are in the US which indicates that the total risk of Canadian utilities is lower than the US.

Q. But, sir, when a utility goes to the BBB market in the States, they're still competing one on one with other risks in the -- other utilities seeking capital in the marketplace. And when an investor looks at the pretax interest coverage ratio between a Canadian utility and a US utility, where are they going to see the less risk for their money?

A. DR. ROBERTS: We agree with you, Mr. McNulty, that if the investor looks just at the pretax coverage ratio, they're going to recognize that the Canadian utility has got more leverage and that, by itself, taken in isolation, means that the Canadian utility has more risk. However investors are not going to look -- my point is -- they're not going to look only at that. They're going to look at all the relevant factors and the other relevant factors that we're pointing you to is while the Canadian utilities have got higher leverage which increases their risk, there are two other factors that reduce their risk: one is the lower business risk and the other is the total risk reflected in the beta.¹³⁸

178. This view was further expanded in a discussion with Commissioner Michaud:

¹³⁶ Written Evidence of Mr. Coyne, Exhibit 50.01, Section 3, pages 52-53.

¹³⁷ See Written Reply Evidence of Dr. Vander Weide, Exhibit 282.01, starting at page 41.

¹³⁸ Transcript, page 2969, line 19 to page 2971, line 11.

variability in revenues. All these factors increase the probability that actual returns will either surpass or fall short of those allowable.¹⁴⁰

181. Of import to utility credit metrics and therefore to the perceived risk of the utility is the presence or absence of construction work in progress (CWIP) being allowed into rate base. Mr. Coyne and Commission Counsel had the following exchange with respect to CWIP in rate base:

Mr. McNulty: Putting the cost of equity aside for the moment, sir, is there a difference in regulatory protection of the utilities in terms of overall costs, operating costs, expansion costs, new project costs, situations that arise that are unexpected with the opportunity for a utility to come back to the regulator to cover unexpected costs vis-a-vis Canada versus the U.S.?

MR. COYNE: I think the general regulatory principles are the same, and that is that reasonably incurred costs for the benefit of customers that provide assets that become used and useful to provide service to those customers, are recovered through rates. And those basic guiding principles are very much the same. But there are differences, jurisdiction to jurisdiction in the States, as there are province to province in terms of the numbers of programs and -- that specifically allow -- there are variations between jurisdictions without a doubt, but I think the same guiding principles are the same. One notable difference between the States and Canada is there is a much stronger prevalent of CWIP in the US than there is in Canada. There are 22 States in the US that currently allow CWIP and that's a fairly significant difference. It's nowhere near as common in Canada.¹⁴¹

182. The Commission would expect that the inclusion of CWIP in rate base would reduce the risk of U.S. utilities by improving their credit metrics compared to those in Canada, but yet this advantage does not appear to be sufficient to close the gap in comparative bond ratings or is offset by other risk factors.

183. In addition to the evidence referred to above, the Commission has also been assisted in arriving at the above conclusion that regulatory risk is higher in the United States than it is in Canada by the recent finding of the FERC which was referred to in the evidence of Dr. Safir¹⁴² with respect to the inclusion of TransCanada in the proxy group it used to evaluate U.S. equity returns, stating:

Also, TransCanada's Canadian pipeline is subject to a significantly different regulatory structure that renders it less comparable to domestic pipelines regulated by the Commission.¹⁴³

184. In the context of understanding the ATCO Utilities proposal for an adjustment mechanism if the Commission decided to continue with a generic ROE with an annual adjustment formula, Commission Counsel explored with Mr. Coyne the comparability of utility bond indices and the proposal to use a Canadian utility bond index rather than a U.S. utility bond index in the adjustment formula. Mr. Coyne suggests a formula based on a 50/50 weighting of half of the change in Canadian A-rated 30-year utility bonds and recent ROE decisions.

¹⁴⁰ Revised Written Evidence of Dr. Safir, Exhibit 292.04 at page 16.

¹⁴¹ Transcript, page 1139, line 25 to page 1140, line 22.

¹⁴² Revised Written Evidence of Dr. Safir at page 14, Exhibit 292.04.

¹⁴³ *Kern River Gas Transmission Co.*, Docket No. RP04-274, (Opinion No. 486-B) 126 FERC ¶611,034 (January 15, 2009), para. 60.

The companies are the ones that generate that process. And they are the ones that go to the regulators and say: We would like to do this, that, and the other thing, as opposed to the regulator saying: You will do this, that and the other thing. So those are two of the big differences that I see.¹⁴⁵

187. The Commission also notes the following exchange between Dr. Vander Weide and Commission Counsel with respect to this matter:

Q. ...Sir, starting at page 14 in question 27 and over to the top of page 15 you discuss your views that the risk of investing in electric and natural gas utilities is approximately the same in the US and Canada. You also make this point on page 34 when discussing the applicable common equity ratios. You point to the use of common technologies, similar economics, common cost of service regulation as support for your conclusions. You also dismiss the impact of deferral accounts in Canada suggesting that their impact is primarily on short term business risk which is more than offset by the financial risk Canadian utilities face because of lower common equity ratios.

Have I summarized your position correctly, sir?

A. Yes, and I would point out that I take a cut -- I make several comments about the risk and those are certainly some of those. I also, as I indicated yesterday in cross-examination, gave a more detailed analysis of the risks in response to several interrogatories, and I'm trying to find out which one it is.

Q. Sir, I wasn't trying to capture every nuance of what you were suggesting but to capture the general flavour of what you're trying --

A. Okay. The other place where I discuss the risks in more detail is in response to CAPP 003.

Q. Thank you, sir. Sir, if Canadian U.S. utilities have similar business risk but different financial risk, wouldn't you have Canadian utilities to have lower credit ratings than comparable utilities in the United States?

A. I'm looking at the question again. I'm not a credit rating expert, so it's difficult for me to comment on what credit ratings I would expect them to have, with the same degree of understanding as say a Susan Abbott would who has a lot of years of experience working for credit rating agencies.

Based on the financial metrics alone, I would -- I am somewhat surprised that the Canadian utilities have slightly higher credit ratings than the US utilities because the financial metrics are quite a bit lower even for what I consider similar businesses. I don't know how to explain that, I'm just surprised at it, but I don't know how to explain it.¹⁴⁶

3.2.3 Conclusions with Respect to Relative Risk and the Use of U.S. Data on Allowed Returns and Market Returns in Determining a Fair Return for Alberta Utilities

188. The Commission has characterized the fair return standard as three criteria or factors to be considered by the Commission when applying its judgment in determining the appropriate weighting to be given to the evidence before it in arriving at a fair return. In undertaking this effort, the Commission must assess the tools available to it and determine which ones are best suited to the purpose. The question that this part of the Decision has tried to address is: should U.S. data on allowed and market returns for U.S. utilities be considered in determining the fair return for Alberta utilities?

¹⁴⁵ Transcript, page 330, line 3 to page 331, line 25.

¹⁴⁶ Transcript, page 2157, line 9 to page 2158, page 25.

A. MS. McSHANE: Well, they're still within the ranges of what the guidelines are for their rating in their industries.

Q. And, ma'am, do you think, again, could it be one influencing factor as to when you compare ROE or capital structure in Canada versus United States that because management selects the capital structure for U.S. utilities that it may be influenced to be higher in the United States as compared to having the regulator deem it historically in Canada? Is that one potential influencing factor to explain the differences?

A. MS. McSHANE: I think the simple answer is yes. The deemed capital structures in Canada are lower than what they would be if management had more flexibility to choose them themselves.¹⁴⁸

193. Ms. McShane's view that the equity ratio in the U.S. is likely higher as a result of the ability of management in certain U.S. jurisdictions to set the capital structure within a range acceptable to the regulator is a further differentiating point between regulation of U.S. and Canadian utilities and an indication that allowed capital structures for U.S. utilities should not be held up as representative of the capital structures required by Canadian utilities in order to satisfy the fair return standard.

194. The record does not support a finding by the Commission that allowed returns on U.S. utilities should be considered as evidence of comparable returns on investment, returns necessary to attract capital or returns required to maintain the financial integrity of Alberta utilities. Higher ROE and capital structures for U.S. utilities will inevitably translate into higher earnings for U.S. utilities. However, higher earnings for U.S. utilities does not translate into a denial of a fair return to Alberta utilities when the underlying risks of utilities in the U.S. and Alberta have been determined by this Commission to be materially different. The fair return standard requires the Commission to grant a utility as large a return on the capital invested as it would receive if it were investing an equal amount in an alternative investment of comparable risk.

195. Significantly, the Commission's finding on the comparability of risk and allowed returns between Alberta and U.S. utilities is supported, as referred to above, by expert testimony offered by some of the witnesses appearing on behalf of utilities in this proceeding and by recent findings by the FERC. Accordingly, U.S. data on allowed returns will not be considered by the Commission in determining a fair return for Alberta utilities.

196. Additionally, the Commission observes that allowed utility returns are not returns available to be captured by investors generally. During the hearing, Mr. Coyne was asked by Commissioner Lyttle about the distinction between the availability of allowed rates of return to investors as follows:

So I have a problem with your fairness deficit because I can't really say that I can invest here versus I can invest there. your fairness deficit speaks about ROEs that are awarded by Board, but that's really not reflected in the ending market values except to determine earnings on those specific years. How much weight can I put on a fairness deficit where a lot of different things impact earnings?

A. MR. COYNE: Good question. I agree with you. You can't buy --you, as an individual investor, can't really buy either of those. You have -- but this really relates to the awarded ROE, of course, for the utility so this is what the regulatory body is granting the original investor in this capital their return for continuing to have that capital invested in that franchise. That's right. Individual investors don't see this. What they

¹⁴⁸ Transcript, page 1747, line 13 to page 1748, line 8.

returns cannot, in of themselves, be determinative of what a fair return for Alberta utilities should be given the inability of the investor to obtain the allowed return directly in the market.

200. The Commission considers that it must make a distinction between utility returns awarded by U.S. regulators and expected market based returns for U.S. utilities when considering the use of U.S. data in determining a fair return for Alberta utilities. Allowed returns, including both ROE and capital structure, are determined by a regulator after considering a number of factors including relevant overall factors like the applicable legislation and case law and individual factors that are specific to the utility, like the business risk of the utility. Also as noted above, the capital structure for U.S. utilities is frequently determined by management within a range acceptable to the regulator. The Commission has determined that returns awarded by U.S. regulators cannot be directly used in determining a fair return for Alberta utilities for the reasons provided above. Properly determined, however, expected market based returns in respect of a particular industry segment are a present reflection of the future return expectations of prospective investors given the perceived risk of that industry segment and the economy as a whole. The share price of the equity or the premium demanded on the sale of a corporate bond will adjust to meet these risk-adjusted investor expectations. Accordingly, expected market determined returns for U.S. utilities may be used on a market risk-adjusted basis in assessing a fair return for Alberta utilities, provided there is sufficient evidence to derive those expected market determined returns.

201. The Commission's conclusions with respect to the use of allowed returns as opposed to expected market based returns appears to be supported by the following exchange between the Chair and Dr. Vilbert, expert witness for AltaGas:

Does this all come down to just let's do what the Americans do or is there something more for us to do here?

DR. VILBERT: I think the short answer is no, I don't think that doing just what the Americans do is the right answer; and actually as I mentioned earlier, I've testified a lot in Canada and I've testified a lot in the United States and I think I heard Dr. Vander Weide say, yesterday, that cost of capital proceedings in the States take one to two days, whereas in Canada it's a longer process. I will also say that I prepare a lot harder when I testify in Canada than I do when I testify in the States because the questions are much more theoretical, they're much deeper questions. So in many ways, I think -- you know, it sounds like I'm being overly praising and I don't mean it to sound that way to sound that way, I'm just saying the Canadian regulatory process is pretty good and I think people, here, really are trying to get to the answer. I do believe, however, that the evidence from the States, particularly the sample companies from the States, has information to provide. I'm not as enamored of the idea of looking at the regulatory allowances in the States and saying that that should be some sort of a benchmark for you. It's certainly information, but I prefer, as a cost of capital expert, to rely on what the market is telling me as opposed to what other regulators are telling me. I do believe that the US market information is relevant to your deliberations and that that's one of the things that I think the NEB decision was positive about. It said look, let's look at the market information and the US companies provide us some information in that regard. After all, there are probably 15 to 30 gas LDC companies in the United States and there are substantially fewer than that in Canada. So that's a sample of companies you should access. But following -- not that you would -- but following just slavishly along to what the Americans are doing, that doesn't seem to make any sense to me, particularly when it comes to allowed rates of return. You've got to consider the risks and so forth on your own. I do think it is a piece of evidence, though, when it comes to comparability the

3.3 TQM Decision

206. The utilities in this proceeding have urged the Commission to consider the findings made by the NEB in the TQM Decision on comparability of U.S. financial data in determining the fair return for Alberta utilities. The NEB concluded:

In light of the Board's views expressed above on the integration of U.S. and Canadian financial markets, the problems with comparisons to either Canadian negotiated or litigated returns, and the Board's views that risk differences between Canada and the U.S. can be understood and accounted for, the Board is of the view that U.S. comparisons are very informative for determining a fair return for TQM for 2007 and 2008.¹⁵⁵

207. Intervenors have suggested that the TQM Decision is an anomaly when considered in the context of previous NEB decisions and previous decisions by the Alberta regulator.

208. The Commission notes that while the subsequent decision of the NEB on October 8, 2009¹⁵⁶ that the multi-pipeline return on equity formula will not continue in effect clearly indicates that the TQM Decision with respect to the NEB's views on the continued use of a generic ROE formula is not an anomaly, this subsequent decision does not address the use of U.S. utility return data.

209. The TQM Decision was focused on establishing the fair return for a single federally regulated natural gas transmission pipeline in the Province of Quebec which forms part of a highly integrated North American pipeline network and the NEB was specifically asked to consider the ATWACC¹⁵⁷ methodology for setting the TQM cost of capital for 2007 and 2008. In addition, the NEB in using a market-based ATWACC methodology considered not only the use of U.S. market data with respect to the cost of equity, but unlike the Commission in this proceeding, it also considered the market cost of debt and a market-value capital structure, using market-value weights for each capital component. The NEB concluded that this allowed it when considering capital structure to adjust for differences in financial risk among sample comparators to TQM and the market as a whole and to find that the embedded cost of debt was accounted for in the market-based ATWACC awarded, ultimately allowing TQM to establish its own capital structure.

210. The Commission is not considering the market cost of debt and a market-value capital structure and is not using market value weights for capital components. Rather, the Commission is determining the return on equity capital by setting an ROE and equity ratio that is then applied to the original cost rate base of each utility.

211. Noting these substantial differences in approach and scope, the conclusions reached by the NEB with respect to the use of U.S. market data in determining a fair return must necessarily be distinguished from the present matters to be determined by the Commission. This distinction being understood, it is nonetheless noteworthy to observe that while some of the conclusions reached by the Commission with respect to the differences in the regulatory environment between the U.S. and Canada and the comparability of returns are different than those reached by

¹⁵⁵ TQM Decision, page 71.

¹⁵⁶ National Energy Board Review of the Multi-Pipeline Cost of Capital Decision (RH-2-94), dated October 8, 2009, File OF-Tolls-TollsGen-COC 01.

¹⁵⁷ Defined in paragraph 52, page 12 above.

217. The Board determined that its approach of adopting a common ROE and adjusting for differences in risk by adjusting capital structures recognizes the impact of leverage on the cost of equity and adjusts for differing investment risks. Decision 2004-052 stated that “... a common ROE approach can accommodate these differences, by adjusting for any material differences in investment risk that would otherwise occur, through an adjustment to the capital structure, or, in exceptional circumstances, through a utility-specific adjustment to the common ROE.”¹⁶³

218. Despite some reservations respecting the use of an annual adjustment formula, most parties were not opposed to the Commission adopting the Board’s approach of establishing a generic ROE for all the utilities and adjusting the equity ratios of individual companies to account for individual risk. Indeed, all the companies, with the exception of the ATCO Utilities, requested the same ROE of 11 percent and differed only in their debt to equity ratio proposals.

219. The ATCO Utilities requested a range of ROEs from 10.5 percent to 12 percent on a variety of proposed company-specific capital structures. ATCO preferred that the Commission approve an ROE and capital structure individually for each ATCO utility and then allow for the ROE and capital structure to be adjusted, as required, at the time of each company’s general tariff applications. Alternatively, ATCO argued that, following approval of the individual ROE proposals for each ATCO utility, “[r]esetting the capital structures to the ATCO Utilities’ recommendations, and revising the adjustment formula to ensure changes in comparable returns can be tracked over time, provides greater assurance that a new Formula can withstand the challenge of consistently providing a Fair Return in the future.”¹⁶⁴

220. The Commission agrees with the Board that “implementation of a generic approach is in the public interest”¹⁶⁵ because a generic approach improves efficiency of the regulatory process in Alberta, provides for greater consistency among utilities, and greater certainty and predictability of utility returns. Administrative efficiency in dealing with cost of capital evidence in rate proceedings was clearly an impetus for the Board and parties to consider a generic ROE formula approach and a single proceeding for setting capital structure for all utilities. The Commission considers that the proliferation of regulated companies caused by electric and gas deregulation, unbundling, and corporate reorganizations that influenced the Board to adopt a generic approach remains a compelling reason to continue with that approach.

221. Consequently, in this Decision, the Commission will approve a single generic ROE to be applied uniformly to all the utilities, and will adjust for any differences in risk among the utilities by adjusting their individual equity ratios.

5 2009 RETURN ON EQUITY

5.1 Introduction

222. To satisfy the fair return standard, the Commission is required to determine a fair return on equity for the utilities. The Commission was presented with a significant body of evidence on the tests to be considered when determining the fair ROE for 2009, a number of opinions on the proper methodology to be employed for many of the tests and, as a result, a wide range of proposed ROEs. Briefly, the record of the proceeding included evidence to support ROE

¹⁶³ Decision 2004-052, page 14.

¹⁶⁴ ATCO Argument, Exhibit 390.02, page 112.

¹⁶⁵ Decision 2004-052, page 11.

224. Dr. Booth explained the use of CAPM in his evidence as follows.

Why the CAPM is so widely used is because it is intuitively correct. It captures two of the major “laws’ of finance: the time value of money and the risk value of money...the time value of money is captured in the long Canada bond yield as the risk free rate. The risk value of money is captured in the market risk premium, which anchors an individual firm’s risk. As long as the market risk premium is approximately correct the estimate will be in the right “ball-park.” Where the CAPM gets controversial is in the beta coefficient; since risk is constantly changing so too are beta coefficients. This sometimes casts doubt on the model as people find it difficult to understand why betas change. Further it also makes testing the model incredibly difficult. However, the CAPM measures the right thing: which is how much does a security add to the risk of a diversified portfolio, which is the central idea of modern portfolio theory.¹⁷¹

225. Evidence to support proposed ROEs based on an application of CAPM was provided by Dr. Booth, Drs. Kryzanowski and Roberts, Mr. Coyne, and Dr. Vilbert. Dr. Vander Weide did not provide a CAPM estimate but he did propose that the appropriate beta for utilities is 0.93, based on data from the U.S. market.¹⁷²

226. The following table sets out the recommended individual CAPM components and resulting ROE levels for each of the experts that presented evidence on CAPM.

¹⁷¹ Booth Revised Evidence, Exhibit 292.03, page 70, lines 14-24.

¹⁷² Transcript, page 2173, line 17 to page 2174, line 12 and Dr. Vander Weide Rebuttal Evidence, Exhibit 282.01, page 25.

228. In considering the evidence on CAPM, the Commission reviewed the remaining proposals on the individual components of CAPM, as well as the overall ROE levels based on the CAPM approach.

5.2.1 Risk-Free Rate

229. The CAPM analysis starts from a forecast of the risk-free rate. Parties differed on their recommended forecast of the risk-free rate. Dr. Booth based his forecast on ten-year long Canada bond yields forecasted by Consensus Economics Inc. and added 0.89 percent for the current spread between the thirty and ten year bond. This resulted in a 4.00 percent forecast to which he added 0.25 percent based on his judgment that the economy will recover more quickly which will cause interest rates to increase. He submitted that his resulting 4.25 percent estimate “is more in line with that of the Bank of Canada.”¹⁸⁶ Given that Dr. Booth’s forecast aligns with that of the Bank of Canada, the Commission accepts it as a reasonable forecast.

230. Drs. Kryzanowski and Roberts based their forecast of the risk-free rate on the long Canada yield of 4.36 percent adopted by the National Energy Board, which was based upon the Consensus forecast, in setting its allowed ROE for 2009,¹⁸⁷ but added 40 basis points “to normalize this yield for the effects of the current easy money monetary policy designed to stimulate economic activity due to the current global credit and economic crises.”¹⁸⁸ They rounded their result to a forecast of 4.75 percent, noting that the same result was found in a recent forecast by TD Economics¹⁸⁹. The Commission does not agree with the 40 basis point adjustment proposed by Drs. Kryzanowski and Roberts, because the TD Economics forecast is already included in the Consensus Economics Inc.

231. Mr. Coyne formed his forecast by taking the average of the 3-month-out and 12-month-out forecasts of the respective 10-year government bond yields, as reported in October 2008 by Consensus Economics Inc. and adding the daily average of the previous month’s historical spread between 10-year and 30-year bonds. Mr. Coyne thereby predicted a risk free rate of 4.13 percent for Canada and 4.44 percent for the U.S.¹⁹⁰

232. Dr. Vilbert also adopted a forecast from Consensus Economics Inc., using their August 2008 forecast of 10-year Canadian government bond yields of 4.3 percent. To this forecast for 10-year bonds, Dr. Vilbert added an additional 20 basis points to adjust the forecast to the average maturity of the long-term bond yields used to estimate the long-term market risk premium, yielding a long term risk free interest rate forecast of 4.5 percent for Canada. Dr. Vilbert used this forecast of the Canadian long term risk free rate for both his Canadian and U.S. CAPM analyses.

233. The Commission recognizes that, at the time these forecasts were made, the volatility in capital markets made it difficult to establish a consistent forecast and forecasts from all sources varied depending on the day, week or month that the forecast was calculated. The Commission considers that, at the time of the Proceeding, forecasts of the risk-free rate in the range of 4.13 percent to 4.50 percent were reasonable for the Canadian market.

¹⁸⁶ Dr. Booth Revised Evidence, Exhibit 292.03, page 18.

¹⁸⁷ Exhibit 179.02, page 186.

¹⁸⁸ Drs. Kryzanowski and Roberts Evidence, Exhibit 179.02, Section 3.3.3.

¹⁸⁹ Ibid.

¹⁹⁰ Exhibit 50.01, Section 3.0, Evidence of Mr. Coyne, page 27 lines 8-19.

Mr. Coyne selected 6.25 percent as his market equity risk premium, viewing the result as “an appropriate North American indicator.”¹⁹⁶

238. Dr. Vilbert argued that “it is likely that investors risk aversion increases during times of financial distress so that the MRP currently is higher than in the recent past.”¹⁹⁷ He maintained his estimate from the previous National Energy Board proceeding (RH-1-2008), with support from “the latest academic evidence” including a recent paper on the worldwide premium,¹⁹⁸ and concluded that the market equity risk premium is 5.75 percent.

239. In the Commission’s view, the 6.25 percent recommendation of Mr. Coyne is unreasonably high. Mr. Coyne estimated a “North American indicator” based on what appears to be an average of the U.S. and Canadian market equity risk premium figures from the Ibbotson data. The Commission does not agree that Mr. Coyne’s “North American indicator” is sufficiently representative of the market equity risk premium in the Canadian investment market. The Commission also notes that Mr. Coyne’s own analysis of the Canadian market equity risk premium, based on the Ibbotson data, yielded a market equity risk premium of 5.40 percent, which is similar to the findings of the other expert witnesses, which were in the range of 5.00 percent to 5.75 percent.

240. Accepting Dr. Vilbert’s assertion that the market equity risk premium may currently be higher than in the past, a market equity risk premium of 5.75 may be warranted. Therefore, the Commission finds the range of 5.00 percent to 5.75 percent market equity risk premium to be reasonable.

5.2.3 Beta

241. The next element of the CAPM analysis is the beta. Beta is a statistical measure describing the relationship of a stock’s return with that of the stock market as a whole. In the Commission’s view, the proper beta to use is that which represents the relative risk of stand-alone Canadian utilities. This is the element of CAPM where the estimates of the expert witnesses diverged the most, providing a recommended range of 0.50 to 0.93.

242. Based on his analysis of the relative standard deviation of ROEs, recent standard beta estimates for utility holding companies, recent beta estimates for utility sub-indexes and a two-factor analysis of utility returns against the TSX composite return, Dr. Booth observed that there is no statistical evidence that the risk of Canadian utility holding companies for the last ten years has consistently been within the “normal” range of 0.40 to 0.60 experienced in the mid to late 1990s. He opined that this is because “normal market conditions are becoming unusual as capital markets seem to be jumping from one bubble to another.”¹⁹⁹ He concluded, on the basis of judgment and a consideration that betas tend to revert to their long run average, that the beta range should be estimated at 0.45 to 0.55. For his CAPM analysis, Dr. Booth employed a beta estimate of 0.50, stating that he found “nothing in the recent risk measures to indicate that this risk ranking has changed in any substantial way.”²⁰⁰

¹⁹⁶ Exhibit 50.01, Section 3.0, Evidence of J. Coyne, page 29, line 31 to page 30, line 7.

¹⁹⁷ Vilbert Evidence, Exhibit 58.02, page 24.

¹⁹⁸ Ibid.

¹⁹⁹ Dr. Booth Revised Evidence, Exhibit 292.03, pages 78-79.

²⁰⁰ Ibid. page 79.

their analysis, they concluded that the rationales supporting the use of non-standard betas, as advocated by Mr. Coyne, are incorrect in a Canadian context.²¹⁰

248. Drs. Kryzanowski and Roberts also found that the average correlation between utilities in their sample and the S&P/TSX Composite has declined substantially from the most distant five-year period to the more recent five-year period (0.495 versus 0.247), and is quite low at 0.263 when averaged over 15 rolling five-year periods. They concluded from this finding that “an average utility is now more desirable as an investment because of its enhanced potential for portfolio risk reduction. A greater potential for risk reduction leads to a reduction in an asset’s own equity risk premium all else held equal. This reduction in the correlations between the returns of the utilities and the market also contributes to the reduction in the betas of the sample of utilities.”²¹¹ They also noted that “the adoption of adjustment mechanisms to automatically adjust ROE on a generic basis by various Canadian regulatory bodies has most likely contributed to this reduction in risk.”²¹²

249. In addition, Drs. Kryzanowski and Roberts calculated the standard deviation of returns for their sample of utility holding companies and Dr. Vilbert’s sample, over rolling five-year periods. They concluded that there is no evidence that the total investment risks of their sample of Canadian utility holding companies or Dr. Vilbert’s sample of five Canadian utility holding companies have increased since the last generic proceeding.²¹³ They recommended, on the basis of their several analyses, that a beta of 0.52 is appropriate and that this estimate is conservatively high, and provides sufficient coverage for any estimation errors.²¹⁴

250. Finally, Dr. Vander Weide recommended a beta for utilities of 0.93, based on data from the U.S.,²¹⁵ but he did not provide an overall CAPM estimate.

251. The Commission is persuaded by the empirical analysis of Drs. Kryzanowski and Roberts that there is insufficient evidence to support the use of adjusted betas for Canadian utilities if the purpose of the adjustment is to adjust the beta towards one and therefore, beta should not be adjusted towards one. Therefore, the Commission rejects Mr. Coyne’s beta results as unreasonably high, because he adjusted his beta estimates on the assumption that they would revert to 1.00. In other words, his analysis assumes that, in time, utilities would be as risky as the market as a whole.

252. Likewise, the Commission rejects Dr. Vander Weide’s recommendation of 0.93 as unreasonably high, noting that it is based strictly on U.S. data. In this regard, the Commission is also mindful of Dr. Vilbert’s assertion during cross examination when commenting on Dr. Vander Weide’s beta estimate, that he had never encountered a Canadian utility beta that high.

As I say, I can't get my betas to get anywhere near that high when I estimate them, not that I'm trying to make them high but they don't come out that high. And my sense is that

²¹⁰ Ibid. page 185.

²¹¹ Ibid. page 181.

²¹² Ibid.

²¹³ Ibid. page 182.

²¹⁴ Ibid. page 185

²¹⁵ Dr. Vander Weide Rebuttal Evidence, Exhibit 282.01, page 25 and Transcript, pages 2173 to 2174.

258. Mr. Coyne states in his evidence:

The DCF model evolves from the basic premise that investors will value a given investment according to the present value of its expected returns over time. This model is widely used in valuing entire companies by discounting the projected cash flows for the enterprise. When valuing the entire enterprise, financial analysts discount the future stream of free cash flows. When considering the common stock of a company, investors consider the future stream of dividends as cash flow from this investment (characterized as the Dividend Discount Model).²¹⁸

259. Evidence to support proposed ROEs based on an application of the DCF model was provided by Mr. Coyne, Dr. Vilbert and Dr. Vander Weide.

260. The following table sets out the individual DCF components and resulting ROE levels for each of the parties that presented evidence on the DCF model. The Commission notes that, with the exception of Mr. Coyne, the experts did not include a 0.50 percent increment for flotation costs in their DCF analyses. The Commission considers that the DCF results should be adjusted to include flotation costs. As with the CAPM analysis, the Commission adjusts the DCF results to include a 0.50 percent flotation allowance.

Table 8. Summary of DCF Estimates

Expert Witness	Dividend Yield	Stage 1 Growth Rate	Stage 2 (if applicable) Growth Rate	Indicated ROE (%)	Flotation Allowance (%)	ROE (%)
Dr. Vander Weide 30 U.S. Electric Companies	See Exhibit 8	See Exhibit 8	n.a.	11.8	0.50	12.3
Dr. Vander Weide 11 U.S. Natural Gas Companies	See Exhibit 9	See Exhibit 9	n.a.	10.8	0.50	11.3
Mr. Coyne ²¹⁹ 6 U.S. Gas LDCs	4.24%	5.5%	n.a.	9.74	0.50	10.24
Mr. Coyne 6 U.S. Electric Dist.	4.82%	4.88%	n.a.	9.70	0.50	10.20
Mr. Coyne 5 North America Gas Transmission	3.12%	8.11%	n.a.	11.23	0.50	11.73
Mr. Coyne 5 Canadian Utilities	3.87%	6.41%	n.a.	10.29	0.50	10.79
Mr. Coyne Average				10.24	0.50	10.74
Dr. Vilbert 5 ²²⁰ Canadian Utilities ²²¹ - single-stage	3.42%	6.24%	n.a.	10.04	0.50	10.54
Dr. Vilbert 5 Canadian Utilities ²²² -multi-stage	3.42%	See Schedule ²²³	4.1%	8.38	0.50	8.88

²¹⁸ Exhibit 50.01, Section 3.0, Evidence of J. Coyne, page 16, lines 9-15 .

²¹⁹ Exhibit 50.01 ATCO, Coyne Evidence Schedule JMC-04, PDF pages 193-196 of 393.

²²⁰ Exhibit 52.02, Table MJV-6, Canadian Utilities, Emera, Enbridge, Fortis Inc., and TransCanada Corp.

²²¹ Exhibit 52.02, Table MJV-6 panel A, and MJV-7 panel A.

²²² Exhibit 52.02, Table MJV-6 panel B, and MJV-7 panel B.

²²³ This refers to Dr. Vilbert's Schedules in Exhibit 52.02.

264. Mr. Coyne employed the results of his DCF analysis and his CAPM analysis to determine “the relative ranges of ROE for each sector.” His remaining analyses were intended to corroborate his findings from these two methods.²²⁸

265. Dr. Vander Weide applied the DCF model to two proxy groups of Value Line U.S. gas and electric utilities. To establish his proxy groups, Dr. Vander Weide selected companies that paid dividends during every quarter and did not decrease dividends during any quarter of the previous two years; had at least three analysts included in the Institutional Investors Estimation Service mean growth forecasts; were not in the process of being acquired; had a Value Line Safety Rank of 1, 2, or 3; and had investment grade S&P bond ratings.

266. Dr. Vander Weide’s DCF analysis for his proxy group of U.S. natural gas companies produced an ROE of 10.8 percent. His analysis for his proxy group of U.S. electric companies produced an ROE of 11.8 percent. Dr. Vander Weide calculated that the average DCF result for his comparable groups was 11.3 percent, and he concluded that the ROE for his comparable companies was 11.3 percent, before flotation.

267. Dr. Vilbert included multi-stage forms of the DCF model which allowed for varying dividend growth rates in the near term before assuming a perpetual growth rate, beginning in year eleven. He used the applicable forecast growth of GDP for his Canadian and U.S. analysis respectively as the long-term growth rate beyond year eleven.²²⁹ Dr. Vilbert applied his DCF analysis to the same sample of proxy companies that he used for his CAPM analysis. His analysis, using his multi-stage approach to calculating the expected dividend growth rate, produced ROEs of between 9.0 percent and 9.3 percent for his U.S. proxy groups and 8.88 percent for his set of Canadian proxy companies, after flotation.

268. Drs. Kryzanowski and Roberts argued that implementing the DCF method at the individual utility level, as the utility experts had done, is fraught with implementation biases.²³⁰ Among these alleged biases are problems with using analysts’ “bottom-up” growth rate forecasts that may be optimistic. Dr. Booth also spoke to similar problems with estimating growth rates in DCF analyses, arguing that “it is generally accepted that analysts’ earnings forecasts are biased high.”²³¹ On the contrary, however, Mr. Coyne argued that “[w]hether growth rates are higher or lower than what is actually achieved is irrelevant to what we are measuring – investor expectations and the influence of those expectations on required returns.”²³²

269. The Commission is concerned that many of the proxy companies used by the experts in their DCF analyses are holding companies that are engaged in significant unregulated activities and is also concerned with the potential upward bias in analysts’ growth estimates. Nonetheless, the Commission considers that a multi-stage DCF analysis that adjusts the long run growth expectations to a reasonable level can provide some guidance to the Commission. The Commission will, therefore, consider the results of some of Dr. Vilbert’s multi-stage DCF analyses in its deliberations, as further explained below.

²²⁸ Ibid. page 13.

²²⁹ Dr. Vilbert Evidence, Exhibit 52.02, page 37.

²³⁰ Drs. Kryzanowski and Roberts, Exhibit 179.02, page 263.

²³¹ Dr. Booth Revised Evidence, Exhibit 292.03, Page 104

²³² Exhibit 50.01, Section 3.0, Evidence of Mr. Coyne, page 30.

276. The comparable earnings results are set out in Table 10, below.

Table 10. Summary of Comparable Earnings Results

Expert Witness	Method	Sample Description	Comparable or Reference ROE
Mr. Coyne ²³⁴	Achieved recent ROE on Canadian low risk industrials	14 low risk companies all of which were in Consumer Products or Media segment	13.6%
Dr. Booth	Past ROE on overall Equity Market	Statistics Canada ROE for Corporate Canada	9.1% ²³⁵
Ms. McShane ²³⁶	Achieved ROEs of U.S. Electric Utilities	29 U.S. Electric Utilities Rated A- or higher 49% average equity ratio	12.4% average 11.6% median 2005-2007
Ms. McShane ²³⁷	Achieved ROEs of U.S. Gas Utilities	14 U.S. Natural Gas Utilities Rated A- or higher 48% average equity ratio	12.1% average 11.2% median 2005-2007

277. Mr. Coyne measured returns in relation to book value for a proxy group of assumed low risk industrial companies headquartered in Canada. Mr. Coyne used Globe Investor to compile a list of all publicly-traded media, consumer products, and utility holding companies in Canada. He considered these sectors “to represent industrial consumer staples with relatively stable demand and significant capitalization.”²³⁸ He obtained quarterly earnings per share data and quarterly return on common equity data for the trailing 12 months going back 5 years for all companies, and then selected only the companies with steady positive annual EPS and ROE for all years; and eliminated companies with a coefficient of variation for earnings per share of greater than 50 percent. This was intended to mimic the stable earnings of the utilities. He reported results that both included and excluded utility companies, recognizing the circularity arising from results that include utilities. The Commission included in the table above his sample that excluded utilities to avoid circularity.

278. Ms. McShane’s ROE estimates were developed from two separate samples: all U.S. natural gas utilities rated A- or higher and all U.S. electric utilities rated A- or higher. Ms. McShane’s results for natural gas utilities were on average 12.1 percent. Her results for electric utilities were on average 12.4 percent. ATCO submitted that the evidence of Ms. McShane²³⁹ demonstrated that A- rated U.S. utilities on average have achieved earnings higher than have been allowed by regulators in Canada and, to a greater extent, higher than the earnings of the ATCO Utilities.²⁴⁰

²³⁴ Exhibit 50.01, Section 3.0, Coyne Evidence, page 34 and Schedule JMC-07.

²³⁵ Booth Revised Evidence, Exhibit 292.03, page 28.

²³⁶ Exhibit 50.01, Section 4.0, McShane Evidence, Schedule 4.

²³⁷ Exhibit 50.01, Section 4.0, McShane Evidence, Schedule 5.

²³⁸ Exhibit 50.01, Section 3.0, Coyne Evidence, page 34.

²³⁹ Exhibit 279.01, McShane Rebuttal at pages 14-15.

²⁴⁰ ATCO Argument, Exhibit 390.02, page 92.

284. The Commission agrees with CAPP that the better approach is to examine the direct evidence of the experts in this proceeding, particularly because the awards of other regulators were established on the basis of a different record.

285. In Section 3.2.3 of this Decision, the Commission determined that it would not consider return awards by U.S. regulators, although it expected market determined returns for U.S. utilities may be examined on a market risk-adjusted basis in assessing a fair return for stand-alone Alberta utilities.

286. The Utilities generally recommended that the Commission give careful consideration to the NEB's recent TQM Decision, which set an allowed return for 2007 and 2008. As noted in Section 3.3 of this Decision, the Commission has distinguished the TQM Decision and indicated it would not consider that decision in determining a fair return for Alberta utilities.

287. The Commission observes that the determination to place no weight on Canadian allowed returns was also made by the NEB in the TQM Decision.

On the question of whether litigated Canadian utility returns are similar because of problems of circularity, or whether they provide a valid signal because they represent independent conclusions reached on similar questions, the Board finds that there was no evidence that conclusively supported either view. Faced with contrasting opinions on the matter, and with the option of relying on returns from other submitted comparables, the Board placed no weight on Canadian litigated returns.²⁴⁶

5.6 Price-to-Book Ratios

288. An equity price-to-book ratio is calculated by dividing the current market price of a stock by its current book value per share. It is often used to compare a stock's market value to its book value. There was considerable debate during the proceeding as to the relevance, if any, of price-to-book ratios.

289. Calgary stated "as Dr. Booth noted ... a price to book ratio does not indicate that precise level of the required fair return; rather it is indicative of the general level of the return. If the price to book ratio is below 1 then generally one would consider that the return is too low, while if it is above 1.2 it would generally indicate an adequacy to somewhat above that required or the fair return."²⁴⁷ Dr. Booth also noted that the price-to-book data in the proceeding generally did not relate to stand-alone utilities and was therefore of little value.²⁴⁸ Dr. Booth provided his calculations of the implied price-to-book ratios for a number of recent corporate purchases of utilities, which ranged from 1.31 to 1.80.²⁴⁹

290. Mr. Engen quoted from the text on *Public Utility Regulation* by Dr. James C Bonbright as follows:

It follows that the common stocks of public companies which actually succeed in earning a fair rate of return as derived by a cost of capital technique can be expected to command

²⁴⁶ TQM Decision, page 69.

²⁴⁷ Calgary Argument, Exhibit 386.02, page 18.

²⁴⁸ Transcript, pages 3544-3547.

²⁴⁹ Dr. Booth Revised Evidence, Exhibit 292.03, pages 119-120.

that AltaGas Utilities Group Inc.'s financial statements dated December 31, 2007²⁶⁰ indicate that AltaGas Utilities Group Inc. had substantial goodwill on its balance sheet. Because AltaGas is regulated on the basis of a return on rate base, which excludes goodwill, the price-to-book value of AltaGas Utilities Group Inc. is not of assistance.

297. The (equity) price-to-book ratio for the 2007 Fortis acquisition of Teresen Inc. was discussed on the record of the proceeding as a potential indicator of the price-to-book ratio for a stand-alone utility. However, there was considerable disagreement as to the correct calculation of the price-to-book value for this transaction. Price-to-book values in the range of 1.27²⁶¹ to 3.99²⁶² were provided. Despite the lack of agreement with respect to the exact calculation, the evidence is that the price paid for Teresen Inc. was at a price-to-book ratio above 1.2. It appears therefore that the awarded return for Teresen was at least fair, at the time of the transaction. However, there is ample evidence on the record that conditions in the market have changed significantly since the Teresen transaction in 2007, and the Commission cannot rely on this transaction as indicative of a fair return for 2009.

5.7 Returns Available on High Grade Corporate Bonds

298. Returns available on Canadian corporate bonds with investment grade ratings of BBB or higher were continuously changing over the course of this proceeding. The spread between the yield on high grade corporate bonds over the risk free rate spiked upward during the last quarter of 2008 and the first quarter of 2009. Mr. Engen for the ATCO Utilities referred to the historical A- corporate bond spread and the effects of the financial crisis on that historical spread as at the end of March 2009 as follows:

The current credit spread for Canadian A-rated corporate bonds is 308 basis points (for the two quarters ending March 2009), whereas historically that average spread was approximately 125 basis points.²⁶³

299. CAPP acknowledged that high grade Canadian corporate bond spreads had indeed widened during the financial crises but observed that spreads were trending downwards as at the close of the oral hearing:

Corporate bond spreads have come down significantly since the dark days when CAPP's evidence was prepared. Generic corporate bond spreads had come down to about 200 basis points in early June with utility bond spreads at 170, 175 basis points. CU Inc.'s spreads as of early June were down to 168 basis points. ... The effect of the financial crisis is temporary and the evidence of the ability to attract capital during the crisis demonstrates that regulatory support is sufficient.²⁶⁴

²⁵⁹ Exhibits 157.01, AUC-AUI-10(a) and 163.01, UCA-AUI-12(a). The UCA argued that the ratio is only below one if goodwill and other intangibles are included in its book value. UCA Reply Argument, page 12

²⁶⁰ Exhibit 58.02, AltaGas Evidence, Section 1.9.4, page 1.

²⁶¹ Transcript, page 1319, line 17.

²⁶² Exhibit 117.03, UCA-EPC, page 120, lines 10-11.

²⁶³ Coyne Rebuttal Evidence, Exhibit 279.01, page 3.

²⁶⁴ CAPP Written Argument, Exhibit 388.02, pages 6-7.

Figure 2 Canadian Utility Bond Spreads

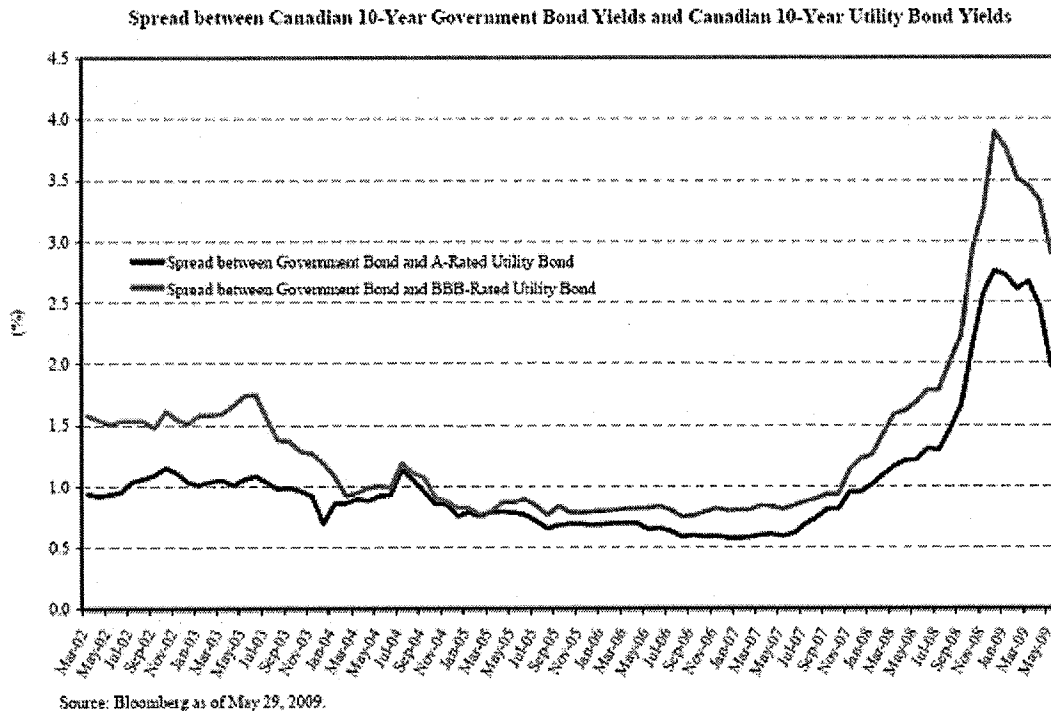


Figure 2

302. Mr. Engen, on behalf of the ATCO Utilities, responded to a questions about recent decline in corporate bond spreads as follows:

There's no question that spreads have tightened in, and for some issuers, materially, since the beginning of the year. Whether they go back to more normal spreads, difficult to say. Partly because I'm not sure what we mean when we say "normal spreads." There's no expectation, and that doesn't mean it won't happen, but there is no expectation amongst the various debt capital market groups, the investment banks, that we're going to go back to the spreads we saw last spring, last summer, where they were very, very tight. There was abundant capital. At the time, it appeared that investors either mispriced risk, didn't care about risk, or misunderstood the risks they were assuming.

Our expectation is that we are seeing a repricing of risk. There may be some more tightening in, but we don't expect to see it going back to the ten-year average spreads that we saw, which for 30-year bonds stood around 100 basis points for A minus rated entities last spring, early summer.²⁶⁷

303. The utilities asserted that a re-pricing of risk on high grade Canadian corporate bonds as demonstrated by the increased spreads must mean that there has been at least a similar increase in the cost of equity capital given that future return expectations of equity investors must always be higher than the lower risk expectations of debt investors. Dr. Booth appearing on behalf of CAPP appeared to accept the premise in the following exchange with Commission Counsel:

²⁶⁷ Transcript, page 1048, line 13 to page 1049, line 8.

308. As has occurred throughout this Proceeding, the Commission must weigh conflicting expert testimony on various factors impacting the determination of a fair return for Alberta utilities. The Commission considers the increased high grade Canadian corporate bond spreads which occurred during the financial crisis and which continued to occur, albeit on a downward trend, at the close of the Proceeding demonstrate that there has indeed been some re-pricing of risk on debt securities. Equity investors in high grade rated companies have more default risk than do debt investors. An increase in debt investor return expectations ordinarily must be considered to result in an increase in return expectations for equity investors otherwise equity investors would not accept the incremental risk associated with equity ownership. The Commission finds that there is insufficient evidence on the record of the proceeding that illiquidity in the Canadian bond market during the financial crisis can account for a significant portion of the increased risk premium demanded by bond investors.

309. While high grade Canadian corporate bond spreads have declined materially since the peak of the financial crisis, the evidence available at the close of the proceeding indicated that some degree of increased corporate bond spread continued compared with pre-financial crisis levels. As described by Mr. Engen above, the high grade Canadian corporate bond spread prior to 2007 averaged 125 basis points²⁷⁴. At the close of the oral hearing, CAPP stated “Generic corporate bond spreads had come down to about 200 basis points in early June with utility bond spreads at 170, 175 basis points.”²⁷⁵ It appears that corporate bond spreads remained at the close of the Proceeding approximately 50 basis points higher than pre-financial crisis levels.

310. The Commission notes the observation of Dr. Booth in the following exchange with counsel for the ATCO Utilities that 50 basis points is the approximate level of “excess spread” required in the debt market for high grade Canadian utility bonds at the time of the oral hearing.

Right now the yields on utility debt in Canada are down to 170, 175 basis points. The yields on CU debts (sic) below that, about 168 basis points. That was as of last week and they’ve been dropping 10, 20 basis points in the last week or so. So what’s happening is utility spreads are tightening dramatically. What I would expect, given that where we are in the economy, I would expect those utility spreads to be more like 125 basis points. So I would guess there’s still about a 50 basis point, what I would regard as excess spread. And most of the people writing newsletters are saying there’s still value to be had in buying corporate bonds.²⁷⁶

311. It remains an open question whether corporate bond spreads will quickly, if ever, return to pre-financial crisis levels. In particular, it remains uncertain that the re-pricing of risk observed in high grade Canadian corporate bond spreads in the period up to the close of the Proceeding will end in either 2009 or 2010. In these circumstances, it is reasonable to conclude that the actual return expectations of utility equity investors in 2009 and 2010 would be at least 50 basis points higher than estimates of equity return expectations derived from methodologies like CAPM which rely solely upon historical data and the risk free rate.

²⁷⁴ Coyne Rebuttal Evidence, Exhibit 279.01, page 3.

²⁷⁵ CAPP Written Argument, Exhibit 388.02, pages 6-7.

²⁷⁶ Transcript, pages 3218-3219.

frameworks if those same agreements were used as precedents to ratchet or re-jig the regulatory framework itself. That would turn without prejudice agreements into with prejudice agreements. Finally, the confidential nature of such negotiations prevents any ability to look through the agreements and see all the tradeoffs being made.²⁸²

318. ATCO, in response to a question from Mr. McNulty with respect to the relevance of the recently negotiated ATCO Pipelines settlement, appeared to agree with the interveners on this matter.

The suggestion that the settlement could be taken as evidence that ATCO Pipelines considered a lower ROE to be a fair return is, with respect, improper and lacks balance, unfairly prejudicing the utility. The language in the settlement is perfectly clear that the return and capital structure, which were deemed values for purposes of the settlement, could not be taken as precedential or prejudicial to positions taken, specifically, in this generic cost of capital proceeding.²⁸³

319. The Commission agrees with parties that negotiated general rate applications settlements cannot be considered in setting the allowed ROE for a utility, because they are made up of a series of compromises and are not of assistance in determining the expected market return for a stand-alone utility.

5.10 Expected Canadian Average Stock Market Returns

320. Dr. Booth's forward looking ROE for the Canadian equity market was developed by assuming that the average dividends since 1961 for the TSX, at 2.4 percent of GDP, and after tax corporate profits of 6.4 percent, imply an average real Canadian growth rate since 1961 of approximately 3.53 percent. Dr. Booth assumed that the "Bank of Canada's inflation rate forecast of 2.0%, implying a long-run growth rate in dividends and earnings of about 5.60%."²⁸⁴ He then added the assumed long run growth rate to the current dividend yield on the TSX of 4.04 percent to derive a DCF estimate of approximately 10.0 percent. However, Dr. Booth argued that this result over-estimates the required rate of return because "short run growth prospects are considerably poorer than the long run rate."²⁸⁵ To counteract this he applied a two-stage growth model where the current dividend is expected to be constant for the first two years then recover in 2010, at which time the growth rate is assumed to be the long run growth rate of 5.60 percent. As a result, Dr. Booth estimates a return on the S&P/TSX of 9.25 percent.

321. Dr. Vander Weide disagreed with Dr. Booth's application of the DCF method to the Canadian market as a whole stating the assumptions of the DCF model do not apply to the Canadian market as a whole. He reasoned that the DCF model is based on the fundamental assumption that a company's stock price is equal to the present value of the cash flows investors expect to receive from investing in the company's stock, that it is very difficult, if not impossible, to match stock prices and cash flows for the Canadian market as a whole, and that the DCF model cannot be applied to companies in the Canadian market that do not pay dividends. The TSX includes companies that do not pay dividends and the TSX companies may

²⁸² CAPP Argument, Exhibit 388.02, page 35.

²⁸³ ATCO Argument, Exhibit 390.02, page 105.

²⁸⁴ $1.02 * 1.0353$.

²⁸⁵ Dr. Booth Revised Evidence, Exhibit 292.03, page 101.

327. The Commission has also considered some of the DCF results on the record of this proceeding to be relevant to its consideration of a fair rate of return. In doing so, the Commission is mindful of some of the shortcomings of DCF expressed by parties. Specifically, the Commission is concerned that it is necessary to perform the analysis on proxy companies that may have significant unregulated assets. In addition the Commission recognizes that the DCF analysis depends on potentially optimistic forecasts of financial analysts. Nevertheless, the Commission does have DCF results for two Canadian utility holding companies with close to one hundred percent of their assets in regulated businesses. Dr. Vilbert's multi-stage DCF analysis for these two companies (Emera Inc. and Fortis Inc., which were part of his Canadian proxy group) yielded results of 8.80 percent and 9.20 percent respectively.²⁸⁷ The Commission also examined the results of multi-stage DCF studies provided by Dr. Vilbert for his Canadian proxy group and two U.S. proxy groups. These results gave the Commission comfort that the DCF results for Emera Inc. and Fortis Inc. are reasonable. The Commission finds the DCF results for these two companies instructive because the companies closely resemble stand-alone regulated utilities. Overall the Commission found that the DCF results suggest a range of ROEs for Canadian stand-alone utilities of 8.8 percent to 9.3 percent, assuming that the equity ratio has been set to target a credit rating in the A range.

328. The Commission also considered the evidence of Dr. Vander Weide on the historical returns for the TSX from 1956 to 2008 which determined that the average stock market return over that period was 10.30 percent. This result largely mirrored the analysis of Dr. Booth that estimated the historical return on the TSX at 10.14 percent.²⁸⁸ The Commission also considered Dr. Booth's forward-looking DCF analysis of the expected average stock market return for the S&P/TSX, which showed a result of 10 percent, which Dr. Booth adjusted downward to 9.25 percent on the assumption that the returns for the first two years of his study period would be depressed.²⁸⁹ The Commission recognizes that stand-alone utility companies, because of their relatively low risk, would be expected to earn returns over the long run that are lower than the expected return for the overall Canadian stock market. This conclusion is supported by the fact that every expert witness in the Proceeding recommended a beta of less than one. In addition, the Commission notes that Mr. Engen, appearing for the ATCO Utilities, when discussing the requests of the utilities in this proceeding stated that "... I don't think anybody is looking to achieve the same kinds of returns long term or otherwise that you would expect in the marketplace generally."²⁹⁰ Accordingly, the Commission considers that it would be unreasonable to award stand-alone utilities an ROE in excess of 9.775, being the midpoint of the range of 9.25 percent to 10.30 percent.

329. The Commission recognizes that monopoly utility companies are generally considered by many to be relatively low risk investments. The Commission heard evidence during the Proceeding that the non-utility company share values fluctuated significantly during the financial crisis while the shares for utility holding companies remained fairly stable.²⁹¹ In the Commission's view, this demonstrates that the utility holding companies are perceived by investors to have less risk than non-utility holding companies. This conclusion is borne out by the fact that the unadjusted beta for utility holding companies during the peak of the financial

²⁸⁷ These numbers include a floatation allowance of .50 added by the Commission.

²⁸⁸ Dr. Booth Revised Evidence, Exhibit 292.03, page 85.

²⁸⁹ Dr. Booth Revised Evidence, Exhibit 292.03, page 101.

²⁹⁰ Transcript, page 1511.

²⁹¹ Dr. Booth Revised Evidence, Exhibit 292.03, page 80 and Mr. Engen, Exhibit 310.

rating. Finally, the Commission will turn to an assessment of each individual utility to determine whether specific adjustments to each company's equity ratio are warranted.

335. The following table (grouped by sector) compares the equity ratios that were approved by the Board in Decision 2004-052 (and in the case of EEAI, in its most recent GTA) with the equity ratios recommended by the applicants and interveners in this Proceeding.

Table 11. Recommended Equity Ratios vs. Last Board Approved Equity Ratios

	Last Approved (%)	Recommended by Utility ²⁹³ (%)	Recommended by UCA & CCA ²⁹⁴ (K&R) (%)	Recommended by Calgary ²⁹⁵ (Booth) (%)	Recommended by CAPP ²⁹⁶ (Booth) (%)
Electric and Gas Transmission					
ATCO Electric TFO	33.0	38.0	33.0	<35.0	
AltaLink	33.0	38.0	33.0	<35.0	
ENMAX TFO	35.0	40.0	30.0		
EPCOR TFO	35.0	40.0	30.0		
ATCO Pipelines	43.0	43.0	42/34 ²⁹⁷		37/33 ²⁹⁸
Electric and Gas Distribution					
ATCO Electric DISCO	37.0	40.0	35.0		
ENMAX DISCO	39.0	44.0	35.0		
EPCOR DISCO	39.0	44.0	35.0		
ATCO Gas	38.0	40.0	34.0	35.0	
ATCO Gas for 2008	38.0	40.0	38.0 ²⁹⁹		
FortisAlberta	37.0	42.0(+ 2) ³⁰⁰	35.0		
AltaGas	41.0	46.0	40/37 ³⁰¹	40.0	
Retailers					
EEAI	37 ³⁰²	42.0	35.0		

336. The CCA did not sponsor evidence but, in argument, supported the equity ratios submitted by Drs. Kryzanowski and Roberts. Calgary indicated in argument that it generally supported the positions taken by the UCA. CAPP submitted in argument that it had limited its capital structure recommendation to ATCO Pipelines.

6.2 Credit Environment

337. During the hearing, evidence was introduced by the utilities and generally accepted by the interveners regarding the financial crisis that affected the world beginning late in 2007. The parties, however, disagreed over whether the crisis had ended or whether there were some lingering and potentially long-term effects.

²⁹³ ATCO Evidence, Exhibit 50.01, page 5, Dr. Vander Weide Joint Evidence, Exhibit 57.04, page 37, Dr. Vilbert, Exhibit 58.02, page 24, ENMAX Evidence, Exhibit 55.01, page 6.

²⁹⁴ Evidence of Drs. Kryzanowski and Roberts, Exhibit 179.02, page 6.

²⁹⁵ Calgary Argument, Exhibit 386.02, pages 12-13.

²⁹⁶ CAPP Argument, Exhibit 388.02, page 94.

²⁹⁷ 42.0 percent without NGTL Integration Agreement, 34.0 percent with NGTL Integration Agreement.

²⁹⁸ 37.0 percent without NGTL Integration Agreement, 33.0 percent with NGTL Integration Agreement.

²⁹⁹ UCA Argument, Exhibit 387.01, page 97.

³⁰⁰ 42.0 percent Recommended by Dr. Vander Weide, 44.0 percent Requested by FortisAlberta for non-taxable status.

³⁰¹ 40.0 percent without weather deferral account, 37.0 percent without weather deferral account.

³⁰² Exhibit 53.04, Evidence of Dr. Vander Weide, page 37.

344. A number of Canadian utility companies finance their debt requirements directly in the debt market independently of any affiliated companies, thereby ameliorating the “dirty window” challenges. Therefore, the Commission will examine the credit ratings of such companies, for which credit rating reports were available on the record, in order to gain some insight into the credit metrics required to achieve an investment grade credit rating for a stand-alone Canadian utility.

345. There are three principal credit metrics. They are:

- EBIT Coverage (interest coverage ratio), which is the company’s earnings measured before deducting interest and taxes divided by total interest costs;
- FFO/Debt, which is the company’s funds from operations as a percentage of total debt;
- FFO Coverage, which is the company’s funds from operations divided by total interest costs.

346. The utilities argued that it was necessary for their companies to meet or exceed minimum standards for these metrics in order to maintain a credit rating in the A range. The utilities pointed to some minimum credit metrics published by the bond rating agencies as providing guidance to the Commission.³¹¹ The Commission observes that these “minimum credit metrics” are more in the nature of general guidelines and that they are no longer consistently published by credit rating agencies.³¹²

347. The following table provides the actual credit ratings and corresponding key financial ratios (or credit metrics) for the Canadian utility companies that raise debt independently and for which credit reports were available on the record. The Commission did not include government-owned entities in this table because their credit ratings are heavily influenced by their government ownership status.

³¹¹ Testimony of Susan Abbott, Exhibit 57.05, page 8, lines 148-150.

³¹² Ibid. page 16, line 317 to page 17, line 319.

an ROE of 8.75 percent (the 2009 placeholder level) and assuming an income tax rate of 29 percent.³²² The assumed debt cost is conservative for 2009 because, according to the utility reports on finances and operations provided in the minimum filing requirements, the average cost of debt in 2007 was 6.22 percent.

Table 13. EBIT Interest Coverage Ratios Compared to Equity Ratios

Equity Ratio (%)	EBIT Interest Coverage
30	1.8
31	1.9
32	1.9
33	1.9
34	2.0
35	2.0
36	2.1
37	2.1
38	2.2
39	2.2
40	2.3
41	2.3
42	2.4
43	2.4
44	2.5
45	2.6

352. Table 13 shows that at a 6.5 percent cost of debt, the minimum equity ratio to achieve a 2.0 EBIT coverage ratio is 34 percent. The table also shows that to achieve an EBIT coverage ratio of 2.3 with a 6.5 percent embedded debt cost would require a minimum equity ratio of 40 percent.³²³ The Commission has compared the results shown in Table 13 to the results shown in Table 9 of EUB Decision 2004-052³²⁴ and observes that the equity ratio required in 2004 to obtain a given EBIT coverage ratio is lower than the equity ratio required today to achieve the same EBIT coverage ratio. The equity ratio required today is higher than in 2004 because income tax rates and allowed ROE declined during the period. For example, achieving an EBIT coverage ratio of 2.0 in 2004 at a 6.5 percent embedded cost of debt would have required a 30 percent equity ratio, whereas in 2009 it would require an equity ratio of 34 percent. The Commission recognizes that lower debt costs would lower the required increase in the equity ratios. Testimony given during the hearing indicated that the average cost of debt has declined since 2004 which would somewhat offset the required increase in the equity ratios indicated here.

³²² Transcript, page 1870.

³²³ The Commission recognizes that the required equity ratio to achieve the interest coverage levels in the table would be somewhat higher in the presence of CWIP or when the effective tax rate is lower than 29 percent due to the Commission's use of the flow-through tax method for revenue requirement purposes in the case of some utilities.

³²⁴ EUB Decision 2004-052, Table 9 entitled Pretax Interest Ratios at Varying Embedded Debt Costs, shown at page 41.

Table 15. Funds From Operations Coverage Compared to Equity Ratios

Depreciation Rate	4.00%	5.00%	6.00%	7.00%	8.00%	9.00%
Equity Ratio (%)						
30	2.46	2.68	2.90	3.12	3.34	3.55
31	2.50	2.72	2.94	3.17	3.39	3.61
32	2.54	2.76	2.99	3.22	3.44	3.67
33	2.58	2.81	3.04	3.27	3.50	3.73
34	2.63	2.86	3.09	3.33	3.56	3.79
35	2.67	2.91	3.14	3.38	3.62	3.86
36	2.72	2.96	3.20	3.44	3.68	3.92
37	2.77	3.01	3.26	3.50	3.74	3.99
38	2.82	3.07	3.31	3.56	3.81	4.06
39	2.87	3.12	3.37	3.63	3.88	4.13
40	2.92	3.18	3.44	3.69	3.95	4.21
41	2.98	3.24	3.50	3.76	4.02	4.28
42	3.04	3.30	3.57	3.83	4.10	4.36
43	3.10	3.37	3.63	3.90	4.17	4.44
44	3.16	3.43	3.71	3.98	4.26	4.53
45	3.22	3.50	3.78	4.06	4.34	4.62

356. It appears from Table 15 that when the annual depreciation expense as a percentage of investment capital is equal to the utility average of 6 percent, a minimum equity ratio of 33 percent is required to achieve an FFO coverage ratio of at least 3, which Table 7 shows is the minimum FFO coverage associated with credit ratings in the lower A range.

6.4 Credit Rating Metric Conclusions

357. The credit metric analysis of relatively pure-play Canadian utilities indicates that in order to target a credit rating in the A range: (i) the minimum equity ratio for Alberta Utilities should be 34 percent based on EBIT analysis, (which is 1 percentage point higher than the existing level awarded to transmission companies), 30 to 36 percent based on FFO/Debt analysis and 33% based on FFO interest coverage analysis; (ii) as a result of lower income tax rates and lower ROEs, a 4 percentage point equity ratio increase would be required to maintain credit metrics at the same level as the 2004 levels; and (iii) the 4 percentage points equity ratio increase would be offset to some degree by the lower debt costs in 2009 versus 2004.

6.5 Equity Ratios and Actual Credit Ratings

358. This section examines the actual credit ratings achieved by Canadian regulated utilities and the equity ratios associated with such credit ratings. The Commission considers that this information provides important factual evidence regarding the equity ratios required for a regulated utility to achieve its actual reported credit ratings. The following table has been prepared by the Commission from information on the record to assist in the analysis. In the table, the Commission has included utilities that are comparable to the utilities regulated by the Commission and that raise their debt independently of an affiliate and for which credit information was available on the record. The Commission did not include government-owned entities.

362. In conducting its analysis, the Commission has observed that credit rating agencies typically adjust the debt/equity ratios of companies to account for items such as asset retirement obligations and capitalized leases. In some cases, adjustments are also made for goodwill. Goodwill on the balance sheet of a utility company may arise when a utility is purchased by another entity at an amount that exceeds its rate base value. The results of these adjustments are important to consider for utility companies because utility regulators do not award a rate of return on goodwill. In the case of TransCanada Pipelines the Moody's credit rating³³⁸ focused on a debt or equity ratio excluding goodwill. As noted in footnote 328, in the case of AltaLink, S&P indicated that after excluding goodwill from the balance sheet "a more conservative measure of leverage to rate base is approximately 70 percent" (30 percent equity).³³⁹ As shown in Table 11, AltaLink has an equity ratio of 36.3 percent (according to S&P) and 38.4 percent (according to DBRS) and has a credit rating of A- stable (S&P) and A with negative trend (DBRS). As noted in footnote 328, S&P subtracted \$200 million in goodwill from AltaLink's balance sheet thereby estimating an equity ratio of 30 percent which is 3 percentage points lower than the awarded equity ratio (even though AltaLink on an unadjusted basis has an equity ratio above its awarded 33 percent).

363. In the same table DBRS indicates that FortisAlberta had an equity ratio of 39.5 percent and had a credit rating of A (low). S&P indicated an equity ratio of 36.4 percent and an A- credit rating for FortisAlberta. This compares to an awarded equity ratio of 37 percent. S&P indicated in its FortisAlberta credit report provided in Exhibit 53.05, that if an asset retirement obligation is treated as debt and if capitalized operating leases are considered then the debt to total capital ratio is 70 percent (which implies a 30 percent equity level). This adjustment does not include any reduction for goodwill similar to the reduction S&P discussed for AltaLink. If such an adjustment were made, the FortisAlberta equity ratio would be 27.8 percent,³⁴⁰ 9 percentage points below its awarded equity ratio.

364. These observations suggest that if AltaLink and FortisAlberta (or other utilities) had not had goodwill on their balance sheets, then their equity ratios would have been somewhat lower than their current levels but would still have been sufficient to generate financial metrics necessary to maintain their current credit ratings.

6.6 Ranking Risk by Regulated Sector

365. In 2004, the EUB ranked the riskiness of the various utility sectors in Alberta based on an analysis of business risk. Business risk affects the perceived uncertainty in future operating earnings and hence determines the capacity for a business to be financed with debt as opposed to equity. Credit rating agencies take into account business risks, and therefore the equity ratios associated with the credit ratings of various utilities provide a good indication of the market's view of the equity ratios required.

366. A number of witnesses commented on the relative risk of the various utility sectors. Dr. Booth expressed the view that electric transmission remains the lowest risk.³⁴¹ Ms. Abbott,

³³⁸ Exhibit 52.03, page 78 of 348, Moody's credit rating report.

³³⁹ Exhibit 57.06, S&P Credit Report dated May 9, 2008.

³⁴⁰ The Commission calculated the adjusted equity ratio from page 7 of the May 30, 2008 DBRS credit report by excluding goodwill i.e. $(460-189)/(460-189+696+8)=0.280$.

³⁴¹ Booth Revised Evidence, Exhibit 292.03, page 62, lines 13-19, pages 57-59.

The Board agrees that a non-taxable entity has a higher volatility of earnings than an otherwise equivalent taxable company, arising from the lack of an income tax component in its forecast revenue requirement. The Board notes that there was no disagreement that the absence of taxation, while lowering costs, increases the volatility of earnings.

374. This issue was discussed by Commissioner Kolesar and Ms. McShane as follows:

Q So the logic of giving the non tax-paying company an extra 2 percent of equity thickness is because the tax-paying company is actually collecting in its rates the expected income tax. So it kind of gives them that extra layer of buffer so that on an after-tax basis, they would -- or sorry, on a pretax basis, they actually have more cash flow that they could use to pay debt with. That's, I believe, the fundamental logic of why they get that -- why the non tax-paying company gets the extra 2 percent because they don't have the benefit of that additional buffer.

MS. McSHANE: What you say is true, and if I go back to Decision 2004-052, at the time of the decision, we had basically three -- what I'll call three types of utilities: Non taxable, fully taxable and AltaLink, which was semi taxable.³⁴⁷

375. ENMAX and EPCOR submitted that they should continue to be awarded an additional 2 percent of equity to account for their status as a non-taxable utility. ENMAX submitted that the EUB's previous decision remains valid today and that an additional 2 percent equity should still be awarded to account for the higher business risks and earnings volatility of a non-taxable entity.³⁴⁸

376. The UCA's witnesses Drs. Kryzanowski and Roberts did not support a 2 percent addition of equity thickness for non-taxable utilities. The UCA argued that an adjustment to equity thickness suffers from two major flaws:

First, it is based on the same overly simplistic view of financial markets that they (Kryzanowski and Roberts) debunked in the earlier discussion of ratio guidelines employed by rating agencies. S&P itself neither states nor acts as if it believed that having a key ratio below a certain target level (due to non-taxable status or other reasons) is grounds for a downgrade. Second, the UCA's witnesses demonstrate that there is a positive side to non-taxable status as it can lead to greater upside when a utility overearns its allowed returns.³⁴⁹

377. Drs. Kryzanowski and Roberts also argued that utilities under Alberta's regulatory regime are more likely to over-earn than under-earn. Their Schedule 2.10, Average Actual and Approved Return on Equity for Applicant Utilities 2001–2007, showed that out of five non-taxable utilities three of them over-earned (actual ROE was greater than allowed ROE.).

378. The CCA supports the arguments of the UCA and states in its Reply that it does not support an increase in equity ratio for non-taxable status utilities.³⁵⁰ The CCA also submitted that there is benefit to the utility from over earning because there are no associated taxes. As a result the non-taxable utility would earn a greater return than a taxable utility when it earns more than its approved rate of return.³⁵¹ Calgary also submits in its Argument that an adjustment for

³⁴⁷ Transcript, page 1872, line 19.

³⁴⁸ EPC Argument, Exhibit 385.02, page 15.

³⁴⁹ Evidence of Drs. Kryzanowski and Roberts, Exhibit 179.02, page 240, lines 1-24.

³⁵⁰ CCA Reply Argument, page 14, paragraph 52.

³⁵¹ CCA Reply Argument, page 14, paragraph 52.

6.7.2 ATCO Gas 2008 Capital Structure

385. ATCO Gas's equity ratio for 2008 remains to be determined in this proceeding. In Argument, ATCO explained how it had filed its evidence as follows:

ATCO Gas is requesting a common equity ratio of 40% with an ROE of 11.0% for 2009. The same factors which support an increase in AG's common equity ratio for 2009 are applicable to 2008 as discussed in Ms. McShane's evidence attached as Appendix F to the ATCO Utilities' application (wherein a common equity ratio of 40% - at the 2008 formula ROE - is requested).³⁵⁸

.....the ATCO Utilities present their own analysis of what a Fair Return for 2009 should be for each utility sector; and what an appropriate capital structure should be for 2008 for ATCO Gas.³⁵⁹

386. The UCA stated that it had specifically studied the required equity ratio for ATCO Gas (ATCO Gas and ATCO Pipelines) for 2008.³⁶⁰ In Argument the UCA stated:

To ensure fairness across applicant utilities to this proceeding, the UCA recommends that the Commission apply the 2004 Generic Cost of Capital decision to these two utilities. In other words, it would be "consistent to leave it where it is now just for 2008".³⁶¹

387. The Commission has examined ATCO Gas's request to adjust the 2008 equity ratio from 38 percent to 40 percent. The Commission recognizes that the effects of the financial crisis were beginning to be felt during 2008 and that, as a result, some increase in ATCO Gas's equity ratio would have been warranted. Therefore, the Commission allows an equity ratio of 39 percent for ATCO Gas in 2008.

6.7.3 Adjustments for Smaller Utilities

388. During the proceeding AltaGas had observed that due to its small size it was exposed to greater business risk than larger companies which operate in the same sector. In its Evidence, AltaGas stated:

The AUI evidence in the case does not compare its business risks in 2004 to those experienced today. It reasonably and properly compares the risk of AUI relative to other utilities. As a result of its small size, regulatory risk, service territory (operating) risk and financial market risks, the overall risk of AUI is higher than its larger utility peers, justifying a higher equity component of its capital structure and a higher return.

389. AltaGas also submitted that smaller firms have greater difficulty accessing public debt and, as a result, they often must rely on short-term loans from banks. This makes small firms more sensitive to fluctuations in interest rates than larger companies that can access longer term debt and exposes smaller companies to greater interest-rate risk, and other financial risks.³⁶² The Commission agrees that AltaGas's small size continues to warrant a higher equity ratio compared to ATCO Gas.

³⁵⁸ ATCO Argument, Exhibit 390.02, page 98.

³⁵⁹ ATCO Argument, Exhibit 390.02, page 1.

³⁶⁰ Transcript, page 2947.

³⁶¹ UCA Argument, Exhibit 387.01, page 97.

³⁶² Exhibit 58.02, page 158, lines 11-15.

Writing prior to its approval, DBRS states the rationale for a weather deferral account as a risk-reducing tool:

The Company's earnings and cash flows, particularly at ATCO Gas where residential customers account for nearly 50% of volume distributed, are sensitive to the weather. Significant changes in weather from one year to the next can impact earnings and cash flows. A 10% change in normal temperatures impacts annual earnings by approximately \$10 million. ATCO Gas is seeking approval from the AUC to set up a deferral account mechanism that would, if approved, eliminate the impact of temperature on ATCO Gas earnings.³⁷¹

396. Drs. Kryzanowski and Roberts conclude that this indicates that DBRS would consider ATCO Gas's weather deferral account to reduce its risk.³⁷²

397. During the proceeding Dr. Vilbert observed that weather risk is not a risk that affects the cost of capital and that only non-diversifiable business risks should be reflected in cost of capital determinations.³⁷³ CAPP's expert Dr. Booth agrees with Dr. Vilbert and stated that weather is the "ultimate" in a completely diversifiable risk.³⁷⁴

398. The Commission considers that weather risk is diversifiable for equity investors but is not diversifiable for debt investors. Debt returns to investors are capped at the contracted interest rates and do not benefit from potential unexpected profits (or losses) than can accrue to equity. Therefore, debt investors have lower diversification opportunities. The Commission finds that a weather deferral account does reduce business risk. In the case of ATCO Gas specifically, the Commission agrees that its business risks have been reduced and therefore a reduction in its equity ratio is warranted.

6.7.6 Transmission Facility Owners and Section 42 of the *Transmission Regulation*

399. Transmission facility owners (TFO) are facing an unexpected period of substantial capital investment and have indicated that they need to be in a position to attract capital to finance these large construction projects. AltaLink states in its Argument that:

With the introduction of the AESO's New 10 Year Transmission Plan and with the introduction of Bill 50 in June of 2009, AltaLink's capital estimates proved to be seriously understated. Under Bill 50, the need for critical transmission infrastructure will be determined by the Province including mandating the need for two HVDC lines between Edmonton and Calgary and two 500 kV lines between Fort McMurray and Edmonton.³⁷⁵

400. Ms. McShane as well as Drs. Kryzanowski and Roberts have stated that ATCO Electric's business risk has increased because of the risks associated with the forthcoming large

³⁷¹ Exhibit 179.02, Evidence of Drs. Kryzanowski and Roberts, page 92, DBRS Rating Report, CU Inc., May 13, 2008, page 3.

³⁷² Exhibit 179.02, Evidence of Evidence of Drs. Kryzanowski and Roberts, page 92, DBRS Rating Report, CU Inc., May 13, 2008.

³⁷³ AltaGas Argument, Exhibit 384.01, page 25, lines 9-12.

³⁷⁴ Transcript, pages 3630-3631

³⁷⁵ AltaLink Argument, Exhibit 389.03, page 2.

404. The Commission does not interpret section 42 of the *Transmission Regulation* to require it to provide TFOs with additional returns. Rather, it is meant to provide authorization to the Commission to consider a wide range of regulatory mechanisms that could assist the TFOs in financing their transmission builds. A number of options, including an increased allowed ROE, a higher equity ratio and the inclusion of construction work in progress (CWIP) in rate base are available to TFOs to assist in the transmission builds.

405. Ms. Abbott (appearing for AltaLink as a former credit analyst) was of the opinion that the ability to include CWIP in rate base would be viewed as a positive by the credit rating agencies.³⁸¹ CWIP for a regulated utility provides an opportunity to capitalize, through an Allowance for Funds Used during Construction (AFUDC), the interest and ROE on the utility's investment in CWIP. In this manner the utility receives a non-cash return through AFUDC. The AFUDC is added to rate base and the utility receives its cash return on this cost of financing its CWIP over the life of the constructed assets.

406. Where immediate cash flow is more important to the utility than the opportunity to add to rate base through AFUDC on CWIP, the ability to put CWIP in rate base would be beneficial to a utility because it advances the non-cash AFUDC associated with the assets under construction to current cash flows for the utility. This in turn lowers the risk of the utility.

407. Counsel for AltaLink, in final Argument, stated that:

AltaLink appreciates the Commission's interest in exploring novel approaches to addressing the cash flow issues caused by significant transmission expansion. While CWIP in Rate Base has some merit and provides some improvements in cash flow, it is not a substitute for fair return. It is AltaLink's view that more must be undertaken to fully understand CWIP in rate base.³⁸²

408. Accordingly, the Commission will defer any decision about inclusion of CWIP in rate base until such time as an application is made to it by a TFO. This approach is consistent with the Commission's approach in the recent AltaLink Management Ltd. TFO Tariffs decision.³⁸³ In that decision, the Commission approved AltaLink's proposal to continue to utilize the Future Income Tax (FIT) method. Neither a 38 percent equity ratio as a placeholder nor a CWIP in rate base solution to AltaLink's credit rating concerns was awarded. The Commission stated:

If, after the effects of the Commission's decision in the GCOC proceeding have been assessed, further measures are required to obviate the potential for a downgrade of AltaLink's credit rating, the Commission is prepared to consider the adoption of measures such as the suspension of normal CWIP accounting procedures on AltaLink's large anticipated capital program. This is the Commission's preferred method of addressing any remaining credit metric concerns identified by AltaLink in the Application because it directly addresses the fundamental cause of the cash flow problem that is impacting credit metrics.³⁸⁴

³⁸¹ Transcript, pages 396-397.

³⁸² AltaLink Argument, Exhibit 389.03, paragraph 70.

³⁸³ Decision 2009-151 – AltaLink Management Ltd. and TransAlta Corporation 2009-2010 Transmission Facility Owner Tariffs, (Released October 2, 2009), paragraph 563.

³⁸⁴ Decision 2009-151, paragraph 617.

ATCO Gas

In respect of 2008, ATCO Gas is awarded a 1 percentage point increase in its equity ratio. For 2009, it is awarded a 1 percent increase. This is based on the 2 percentage point base increase and a deduction of 1 percentage point to recognize that it now has a weather deferral account.

FortisAlberta

As determined in section 6.7.1, FortisAlberta is awarded an additional 2 percentage points in its equity ratio since it is currently non-taxable.

Table 17. Equity Ratio Findings

	Last Approved (%)	Requested (%)	2009 (%)
Electric and Gas Transmission			
ATCO Electric TFO	33	38	36
AltaLink	33	38	36
ENMAX TFO	35	40	37
EPCOR TFO	35	40	37
RED Deer TFO	35	n.a.	37
Lethbridge TFO	35	n.a.	37
TransAlta	33	n.a.	36
ATCO Pipelines	43	43	45
Electric and Gas Distribution			
ATCO Electric DISCO	37	40	39
ENMAX DISCO	39	44	41
EPCOR DISCO	39	44	41
ATCO Gas	38	40	39
ATCO Gas for 2008	38	40	39
FortisAlberta	37	44	41
AltaGas	41	46	43
Retailers			
EEAI	37	42	39

6.9 Future Adjustments to Capital Structure

413. The equity ratios awarded in this Proceeding will remain in place until changed by the Commission. Individual utilities, or interveners, may apply for changes to equity ratios on the basis of significantly changed circumstances.

7 ADJUSTMENT FORMULA

414. Having determined the fair generic rate of return on equity for 2009, the Commission must consider how that rate of return might be adjusted in future years. One of the principal purposes of this proceeding has been to consider whether the annual adjustment formula adopted by the EUB in 2004 should be retained, and if not, whether a new formula for annual adjustments to ROE or any formula at all should be adopted by the Commission.

415. The utilities appearing at the hearing unanimously asserted that the 2004 formula is broken. Some utilities argued that the formula no longer produces a fair ROE because

continued to move in an opposite direction from the required equity market return before and after the March 2009 peak of the crisis. By the end of the hearing in mid 2009, the spread between Government of Canada 30-year bond rates and the corporate bond rate had begun to narrow once again and market equity rates had also begun to decline.³⁹² There was no evidence to suggest that historical relationships required for the formula to properly reflect utility required returns on equity had been re-established as of the close of the record. Indeed there was still considerable uncertainty in the market. Therefore, the Commission rejects interveners' assertions that it should assume that things are quickly returning to "normal"³⁹³ and that the formula can simply be continued.

419. During the hearing, the Commission explored the possibility of making some adjustments to the 2004 formula in order to recognize the types of changes that had occurred and were occurring in the capital markets. For the most part, the interveners preferred that a formula be retained. The utilities, on the other hand, stated generally that they preferred that no formula be adopted but did engage in discussions about possible changes to the existing formula. A number of possible changes to the formula were suggested but there were still concerns raised that no formula can adequately anticipate all of the changes in capital markets and other factors that might occur to influence the cost of equity. Some of the possible approaches included: adding new review trigger points,³⁹⁴ resetting the start point,³⁹⁵ lowering the sensitivity to changes in interest rates³⁹⁶ and or creating a new ROE adjustment mechanism, indexed to ROE awards for an appropriate group of comparable utilities, bond yields, or a combination of the two.³⁹⁷

420. The Commission is unwilling to make any of the suggested changes to the formula at this time because the changes suggested were not and could not have been fully considered during the proceeding while the economic crisis was ongoing and the relationships among various market indicators were fluid. Changing the formula to incorporate the corporate bond rate, while a seemingly simple adjustment, may not be a satisfactory longer term adjustment to the Alberta formula because of perceived concerns about the influence that Alberta's investor-owned utility companies could have on the posted corporate bond rate.³⁹⁸ Placing a lower limit on the return on equity that could be allowed by a revised formula at this time would not necessarily ensure fairness.

421. At this time, the Commission agrees with Mr. Stout's observations, on behalf of EPCOR, about the use of a formula:

...we have reservations about the ability of a single formula to accommodate all the conditions. We have similar concerns, by the way, about a single trigger mechanism which also may not necessarily capture all the conditions. We just think the whole issue of what is a fair return and capital structure in the context of very dynamic and volatile markets is something that's very difficult to model and we don't think we're clever enough, let's put it that way, to establish a formula or a trigger mechanism that we think would necessarily produce the right results in all circumstances. So it gives us a certain reservation about formula approaches, if you can appreciate that.

³⁹² Exhibit 310.

³⁹³ Transcript, page 3274, line 20.

³⁹⁴ AltaLink Argument, Exhibit 389.03, page 36.

³⁹⁵ ATCO Argument, Exhibit 390.02, page 61 and AltaLink Argument, Exhibit 389.03, page 36.

³⁹⁶ ATCO Argument, Exhibit 390.02, page 61.

³⁹⁷ ATCO Argument, Exhibit 390.02, pages 61-63.

³⁹⁸ Transcript, page 1081 and pages 1083-1084.

427. IT IS HEREBY ORDERED THAT:

- (1) The Generic ROE for 2009 and 2010 is set at 9.0 percent.
- (2) The Generic ROE for 2011 is set at 9.0 percent on an interim basis.
- (3) Utility equity ratios for 2009, 2010 and until further changed by the Commission, are as set out in the table below.
- (4) The equity ratio for ATCO Gas for 2008 is set at 39 percent.
- (5) Utilities are directed to apply to adjust their revenue requirements to reflect the impacts of this Decision in due course.

Segment	Awarded Equity Ratios (%)
Electric and Gas Transmission	
ATCO Electric TFO	36
AltaLink	36
ENMAX TFO	37
EPCOR TFO	37
RED Deer TFO	37
Lethbridge TFO	37
TransAlta	36
ATCO Pipelines	45
Electric and Gas Distribution	
ATCO Electric DISCO	39
ENMAX DISCO	41
EPCOR DISCO	41
ATCO Gas	39
FortisAlberta	41
AltaGas	43
Retailers	
EEAI	39

APPENDIX 1 – PROCEEDING PARTICIPANTS

(return to text)

Name of Organization (Abbreviation) Counsel or Representative
AltaLink Management Ltd. (AltaLink) H. Williamson A. Ross
ATCO Gas, ATCO Electric Ltd. and ATCO Pipelines (ATCO Utilities) L. Smith, Q.C.
AltaGas Utilities Inc. (AltaGas) C. K. Yates
BP Canada Energy Company C. Worth
The City of Calgary (Calgary) H. Johnson
Canadian Association of Petroleum Producers (CAPP) L. Manning
Consumers Coalition of Alberta (CCA) J. A. Wachowich
ConocoPhillips Canada Limited J. Gilholme
EPCOR Distribution & Transmission Inc. (EPCOR) J. Liteplo
EPCOR Energy Alberta Inc. (EEAI) J. Liteplo
EnCana Corporation K. Hadley R. Powell
ENMAX Power Corporation (ENMAX) G. Weismiller
FortisAlberta Inc. (Fortis) T. Dalgleish
Industrial Gas Consumers Association of Alberta G. Sproule

APPENDIX 2 – ORAL HEARING – REGISTERED APPEARANCES

(return to text)

Name of Organization (Abbreviation) Counsel or Representative	Witnesses
AltaLink Management Ltd. (AltaLink) H. Williamson Q.C. R. Block, Q.C.	D. Frehlich J. Bronneberg S. D. Abbott J. Vander Weide
ATCO Gas, ATCO Electric Ltd. and ATCO Pipelines (ATCO Utilities) L. Smith, Q.C. K. Beattie	A. Engen O. Edmondson J. Coyne S. Gaske D. DeChamplain K. McShane B. Bale E. Jansen
AltaGas Utilities Inc. (AltaGas) C. Yates, Q.C. D. Langen	E. Tuele A. Mantei P. Newson J. Fan M. Vilbert
The City of Calgary (Calgary) D. Evanchuk D. Farmer	H. Johnson L. Booth
Canadian Association of Petroleum Producers (CAPP) L. Manning N. Schultz	A. Safir L. Booth R. Fairbairn
Consumers' Coalition of Alberta (CCA) J. Wachowich	
EPCOR EPCOR Distribution & Transmission Inc. (EDTI) EPCOR Energy Alberta Inc. (EEAI) J. Lowe	D. Gerke P. Chung R. Stout J. Vander Weide
EnCana Corporation K. Hadley R. Powell	
ENMAX Power Corporation (ENMAX) D. Wood M. Synnott	J. Neri G. Weismiller



DECISION

**IN THE MATTER of a review of
the Cost of Capital for Enbridge Gas
New Brunswick L.P. (EGNB)
November 30, 2010**

NEW BRUNSWICK ENERGY AND UTILITIES BOARD

INTRODUCTION

The New Brunswick Energy and Utilities Board (the Board) has regulated Enbridge Gas New Brunswick since it commenced operations in New Brunswick in 2000. At that time the Board approved a system of rate making and accounting that would allow EGNB to make significant investments during a period of developing the distribution network. These investments were made in the anticipation that they would be recovered from customers once the Development Period ended. In 2008 the Board recognized the need for a number of regulatory decisions to be made prior to the end of this Development Period.

The Board convened a hearing in the nature of a case management session, which was held on January 22, 2009, where it heard from all interested parties concerning these regulatory issues. These parties presented their positions regarding what issues required consideration by the Board, in what order and what issues could conveniently be considered in the same hearings. The decision flowing from that hearing gave direction with respect to subsequent hearings.

Some of the first matters to be dealt with were the issues surrounding the Development Period. It was recognized that the decision about how the Development Period is defined and when it ends would have an impact on many of the other matters to be determined.

The Board, in a decision concerning the Development Period, dated December 1, 2009, identified additional issues requiring consideration, specifically finding that Enbridge Gas New Brunswick Limited Partnership's (EGNB) return on equity, cost of debt and capital structure could and should be reviewed during the Development Period. A process was put in place to conduct that review, which included the filing of a ten year forecast by EGNB.

A public hearing was held in Fredericton from September 27 through September 30, 2010 to consider the return on equity, cost of debt and capital structure of EGNB.

EGNB argues that its currently approved rate for its cost of debt is reasonable and that no change is warranted. Although Dr. Booth provided evidence that Enbridge Inc.'s cost of debt was almost always higher than two of its operating subsidiaries in Ontario, the Board heard no evidence that EGNB could borrow at a lower rate than Enbridge Inc., and in fact heard evidence that EGNB may be required to pay a higher rate.

Mr. Charleson testified at page 262 that:

...about a year and a half, two years ago, we had--- the Treasury Group looked as well to see if there was the opportunity--- if there might be a way to save on interest costs if we went to the private markets and (it) came back at a higher cost.

The Board finds that EGNB is currently not able to obtain financing at a rate any lower than Enbridge Inc.'s borrowing rate plus 100 basis points.

Based on the foregoing, the Board determines that the current cost of debt is reasonable and orders that the cost of debt of EGNB be limited to the actual borrowing rate of Enbridge Inc. plus 100 basis points. This rate is to apply to both long-term and short-term borrowing. In addition, the Board orders EGNB to continue recording all of the information necessary regarding the borrowing cost of its parent company in support of the interest charges to EGNB. This information shall be filed, *inter alia*, for the annual review.

The Board finds the CAPM method is widely used, well accepted and thoroughly vetted. As a result the Board finds that, at this time, a Capital Asset Pricing Model is an appropriate method to determine the ROE for a benchmark utility and will use this method in this decision.

This CAPM method for EGNB can be summarized by the following equation:

ROE = Risk free rate + (Market Risk premium x beta coefficient) + Flotation costs + EGNB risk premium

As the equation indicates the model requires the determination of a reasonable forecast of the risk free rate. An appropriate market risk premium is then added to the risk free rate. The premium is estimated for the market as a whole and adjusted by a beta coefficient. The beta is a factor used to convert a general market risk premium into one appropriate for a benchmark utility. An additional amount is added to cover flotation or financing costs. Since EGNB is not a mature benchmark utility, a further risk premium must be considered to account for EGNB's specific situation. This decision will address each of these matters in turn.

The Risk Free Rate

The initial step in the CAPM method establishes the risk free rate. Both Ms. McShane and Dr. Booth recommend that the 30-year Government of Canada Bond interest rate (LTC) be used as the risk free rate. The Board accepts this recommendation for the purposes of this hearing.

Ms. McShane recommends an LTC forecast of 5.0% based on the *Consensus Economics* forecast. *Consensus Economics* does not produce monthly forecasts of the 30-year Government of Canada bond. Accordingly Ms. McShane uses their forecast for a 10-year Government of Canada bond, to which she adds a differential between the 10-year bond rate and the 30-year bond rate. In the first year of her forecast projection she adds a premium of 0.4% representing the current differential to arrive at 4.6%. Ms. McShane's forecast projection is for ten years, and consequentially she uses the same methodology to develop LTC forecasts for 2011-2015 (5.0%) and 2016-2020 (5.3%). She concludes that an LTC of 5.0% is reasonable.

Dr. Booth's LTC forecast is based on the recent history of the 30-year bond rate. He concludes that the 30-year bond yield stayed at 4.5% from 2005 to the end of 2007. It is his opinion that over the long term the rate will return to 4.5%. He forecasts a modest economic recovery in

premiums that ranged from 2.0% to 8.0%. Dr. Booth observes that most of the respondents in the survey use a premium of 5.0% to 6.0% and he recommends this range as appropriate.

Having considered all the evidence the Board finds that an appropriate market risk premium lies between 5.0% and 6.0% and for the purposes of this decision, the Board sets the market risk premium at 5.5%.

Beta

To arrive at the risk premium for a benchmark utility, the market risk premium for the market as a whole must be adjusted using a beta coefficient. This is because an investment in a typical utility is considered less risky than an investment in the market as a whole.

Ms. McShane recommends a beta in the range of 0.65 to 0.70. She arrives at this range by analyzing the historical variability of the S&P/TSX Composite Index compared to a sub-index of utility companies as a whole.

Dr. Booth also employs historical data. He examines beta from the utilities S&P/TSX sub-Index as well as a set of Canadian utility holding companies. He also examines the performance of utilities in the recent financial crisis. He concludes that a reasonable range for beta is 0.45 to 0.55.

By its nature the utility beta is based on information that is similar across the country. For this reason there is value in the Board looking at other jurisdictions for additional information. A partial review of other jurisdictions is found in Dr. Booth's evidence on page 50. The range would appear to be from 0.50 to 0.66.

The Board finds that the appropriate beta for the purposes of this decision is 0.55 and that the resulting market premium for a benchmark utility is 3.03% ($5.5\% \times 0.55$).

Flotation Costs

The Board heard evidence from both Ms. McShane and Dr. Booth that a premium to account for financing or flotation costs is appropriate. Ms. McShane recommends the premium be 0.75% while Dr. Booth concludes that 0.50% is reasonable.

opportunities, including other utilities. It is with this frame of reference that the Board evaluates the risk facing EGNB and determines the risk premium required.

Market Risk

In terms of market risk, EGNB includes the size and nature of the New Brunswick market as an issue. Specifically, it claims cost-effectively serving customers is more challenging in a sparsely populated province. Moreover, because New Brunswick's economy is small and not as diverse as other provincial economies, New Brunswick is more susceptible to economic downturns. This susceptibility to economic fluctuations, the company maintains, puts the utility at a greater risk of losing load. EGNB also includes the existence of Single End-use Franchises which it estimates represents as much as 80% of the provincial load. Without this load the company believes it is exposed to greater risk than it would be otherwise.

Additionally, in its evidence, EGNB states that natural gas is still a relatively unfamiliar fuel choice although the company has made progress in educating potential customers about this option.

The Board is well aware of the nature of the customer base, the provincial economy and the Single End-Use Franchises. The Board, however, is not convinced that these factors have changed in any significant way since 2000.

Competitive Risk

With respect to competitive risk, EGNB states that its ability to grow its market is largely dependent on the price of competing fuels. The ability to attract new customers is – in part - based on being able to offer a savings at the burner tip compared to the price of alternative fuels. Inherent in this business model is that, if the price of the fuels gets too close together, it will be harder to attract new customers. The Board heard testimony that this convergence of fuel prices did occur. Natural gas prices rose significantly during the early years of the franchise reducing the competitive advantage relative to both oil and electricity. In addition electricity prices did not rise as the company forecasted. The combination of these factors decreased the incentive to convert to natural gas.

As a result of the reduced incentive, EGNB is more dependent on potential customers deciding to install new furnace equipment before they switch to natural gas. The company stated that it has

Ten years later there are in excess of 10,000 customers who purchase more than 5 terrajoules of natural gas. The Public Intervenor suggested that this is a large reduction of risk to the utility.

Atlantic Wallboard L.P. (AWL) also argued that the risk facing the company has decreased. The Board heard that in 2000, the company was facing an application by a competitor for a franchise in Moncton. By its own documents, such a franchise would have made the EGNB operation unviable. Additionally, AWL stated that when the franchise was first granted, EGNB could not market the gas but was required to rely on third parties to sell the commodity. This left EGNB, in part, subject to the marketing efforts of third parties. AWL argued that both of these risks are gone. The application for an alternative franchise was unsuccessful and, in 2003, the legislation was amended to allow EGNB to sell gas directly to customers.

Deferral Account Risk

The risks discussed above have largely remained stable or decreased over the last ten years. What truly separates EGNB from mature utilities and what makes EGNB much more risky than a mature utility is its large and growing deferral account.

The Deferral Account was original forecast to peak at \$13 million and has ballooned in the last ten years. At the end of 2009, the account was estimated at \$155 million and EGNB predicts that this account will peak at \$173 Million in 2011. EGNB's total regulatory deferral, which includes Operating and Maintenance costs related to the development of the system, is expected to be in excess of \$276 million at that time.

The Board finds that the risk that not all of the Deferral Account will be recovered is a real and significant risk facing EGNB's investors. Not only is the size of the debt to be paid large but EGNB's ability to recover it is dependent on market forces which are out of EGNB's control.

The EGNB risk premium must give the investor a return in exchange for the risk relative to other investment options. Too much of a premium, in the case of this utility, imposes undue costs on future customers; too little risk may starve the utility of needed capital. In this respect the most important risk to consider is the added risk that the deferral account may not be fully recovered. Considering all of the evidence and risk factors and particularly the magnitude of the Deferral Account the Board finds that the EGNB risk premium is 2.75%.

Capital Structure

The capital structure of a business includes both the debt and equity. The debt-to-equity ratio caps the percentage of the equity on which the EGNB may earn a ROE. In its June 2000 decision the Board approved, for regulatory purposes, the use of a capital structure for EGNB with an equity component not to exceed 50%.

In the current hearing EGNB proposed that the debt-to-equity ratio remain unchanged. Ms. McShane testified that the equity share in Canadian utilities has increased since the franchise was granted. She testified that this trend supports EGNB's position that the equity portion not be lowered.

In his pre-filed evidence Dr. Booth states on the first page:

I would recommend that EGNB be immediately moved to the 40% common equity ratio the company is forecasting for 2016. This is slightly higher than the common equity ratios of the large mature gas LDCs, like its sister company EGDI in Ontario, but reasonable given its size.

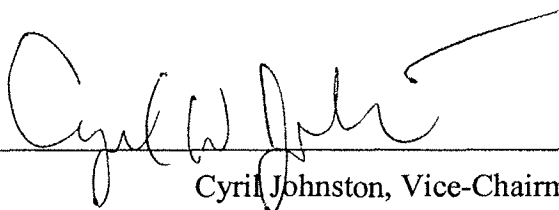
No party filed evidence of another utility that currently has an approved equity component as high as 50%. Table 2 of Ms. McShane's evidence set out the level of equity percentages for Canadian natural gas utilities. This equity level ranged from 36% to 45% for 2010. Mature natural gas utilities tended to fall in the 36% to 40% range. For example Enbridge Gas Distribution Inc. is at 36%. EGNB is not a mature utility, but it has moved toward maturity since 2000. This movement should be reflected in the debt-to-equity ratio.

Considering all the factors and evidence before it, the Board determines that EGNB should have a capital structure where the equity portion does not exceed 45%.

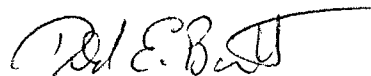
Dated at the City of Saint John, New Brunswick this 30th day of November, 2010.



Raymond Gorman, Q.C., Chairman



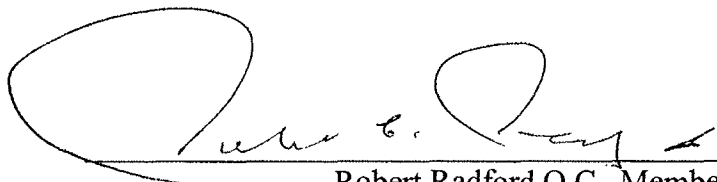
Cyril Johnston, Vice-Chairman



Don Barnett, Member



Edward McLean, Member



Robert Radford, Q.C., Member