2009 Generic Cost of Capital

November 12, 2009

ALBERTA UTILITIES COMMISSION
Decision 2009-216: 2009 Generic Cost of Capital
Application No. 1578571
Proceeding ID. 85

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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 proceeding[2] 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 2008-051[4] 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

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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).

along with the ROE level and adjustment formula. The Commission also recognized that ATCO Gas, in a separate proceeding,[5] had applied for an equity ratio increase for 2008 and 2009. ATCO Pipelines, also in a separate proceeding,[6] had applied for both equity ratio and ROE increases for 2008 and 2009. In the interest of efficiency, the Commission determined that ATCO Gas's and ATCO Pipelines' cost of capital applications for 2008 could be dealt with in the generic proceeding. Subsequently, ATCO Pipelines reached a Negotiated Settlement Agreement (NSA) with respect to its 2008 and 2009 revenue requirements. This NSA was approved by the Commission in Decision 2009-033[7] and therefore ATCO Pipelines was no longer requesting that the Commission address the 2008 ROE and capital structure changes included in its original general rate application.

1.2 Procedural Background

5. On July 25, 2008, pursuant to section 8(2) of the *Alberta Utilities Commission Act*, S.A. 2007, c. A 37.2, and in accordance with Decision 2008-051, the Commission initiated the present proceeding by issuing a public notice (Notice)[8] for the 2009 Generic Cost of Capital Proceeding (Proceeding ID. 85, Application No. 1578571) (2009 GCC Proceeding or Proceeding). The Notice indicated that the 2009 GCC Proceeding would review the level of the generic return on equity for 2009, the ROE adjustment formula and the capital structures of the utilities on a utility-specific basis. The Proceeding would not deal with the cost of debt component of the cost of capital. This Notice applied to all gas distribution, electric distribution and transmission and pipeline companies regulated by the AUC. In addition, the Notice indicated that:

> Other utilities (Other Utilities) that may wish to participate in the 2009 GCC Proceeding include, but are not limited to:
>
> > Various investor-owned water utilities regulated by the Commission
> > EPCOR Energy Alberta Inc. (Regulated Retail Electricity Operations)
> > ENMAX Energy Corporation (Regulated Retail Electricity Operations)
> > Direct Energy Regulated Services (Regulated Retail Electricity and Gas Operations)
> > City of Lethbridge (Electricity Distribution)
> > City of Red Deer (Electricity Distribution)
>
> Other Utilities in determining whether or not to participate in the 2009 GCC Proceeding should note that the Commission decision resulting from this proceeding, may be considered by the Commission with respect to cost of capital related matters in future proceedings relating to Other Utilities. Regarding regulated retail electricity and gas operations, the generic cost of capital may be applied in any cases where a return-on-rate-base approach is used, however a review of appropriate retail return margins will not be included in this proceeding. With respect to water utilities, the generic cost of capital results may be considered but may not be definitive in setting ROE or common equity ratios.

[5] Application No. 1553052, ID No. 11 ATCO Gas 2008-2009 General Rate Application Phase I.
[6] Application No. 1527976, ID No. 13 ATCO Pipelines 2008-2009 General Rate Application Phase I.
[7] Decision 2009-033 - ATCO Pipelines, 2008-2009 General Rate Application Phase I Settlement Agreement (Application 1527976) (Released: March 18, 2009).
[8] Exhibit 1.

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

Process Step	***Deadline Date***
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, 2009[11] 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.

12. The Commission issued a letter dated April 13, 2009[12] advising parties that the NGTL evidence would remain on the record of this Proceeding and that the extent to which it would be considered by the Commission would be a question of weight. In a letter dated April 29, 2009[13] the Commission approved the request of the ATCO Utilities to incorporate into its case in this Proceeding the evidence of Mr. Engen filed by NGTL, including relevant Information Request Responses and to permit the filing of Supplemental Written Direct Evidence of Mr. Engen. The Commission noted that AltaGas Utilities Inc. (AltaGas) had indicated that it was not prepared to sponsor NGTL evidence absent acceptance by the Commission of one of its proposals in respect of that evidence. AltaGas indicated however, that its expert, Dr. Vilbert would continue to rely on the analysis that he and Dr. Kolbe had performed for NGTL which had relied on the business risk evidence filed by NGTL and the expert testimony filed by Dr. Carpenter and Mr. Engen. The Commission also confirmed that all of the NGTL filed evidence remained on the record of this Proceeding. Accordingly, other than the evidence of Mr. Engen which was sponsored by the ATCO Utilities, the evidence of NGTL and of the experts filed by NGTL was considered by the Commission to be unsponsored evidence. Parties were invited to provide submissions on the weight to be accorded to such unsponsored evidence in final argument.

13. At the conclusion of the oral hearing parties wishing to make oral submissions in argument were provided the opportunity to do so on July 23, 2009. Written Argument was also filed on July 23, 2009 by all active parties. Reply Argument was filed by all active parties on August 13, 2009. On August 14, 2009 the ATCO Utilities filed a correction to its Reply Argument. The Commission considers the record of this proceeding to have closed on August 14, 2009.

14. The panel assigned to the Proceeding consisted of Willie Grieve, AUC Chair, and of the panel, Commissioner Tudor Beattie, Q. C., Commissioner Mark Kolesar, Commissioner Anne Michaud and Commissioner Bill Lyttle.

15. All natural gas distribution and transmission utilities and all electric distribution and transmission utilities regulated by the Commission and interveners representing major customer interests registered to participate in the proceeding. The record of this Proceeding is voluminous including extensive detailed written evidence, information request responses, testimony and argument. The Commission issued several rulings throughout the course of the proceeding on various evidentiary and procedural matters.

16. The Commission heard from cost of capital, investment banking, credit rating and financial market experts for both the utilities and the interveners. The following experts appeared at the oral hearing:

- Dr. Michael J. Vilbert for AltaGas Utilities Inc. specializes in financial and regulatory economics and is an expert in cost of capital, financial planning and valuation matters.
- Ms. Susan Abbott for AltaLink Management Ltd. is an expert in rating agency matters with over 20 years, including international, rating experience.
- Dr. Vander Weide for AltaLink Management Ltd., EPCOR Distribution & Transmission Inc., EPCOR Energy Alberta Inc. and FortisAlberta Ltd. is an expert on financial and economic theory and practice and on the cost of capital.

[12] Exhibit 229.
[13] Exhibit 273.

- 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).

19. As noted above, the EUB adopted its annual ROE adjustment formula in 2004. At that time, the impacts of electric and gas deregulation, unbundling and corporate reorganizations had added significantly to the number of individual utilities in Alberta. Administrative efficiency in dealing with cost of capital evidence in rate proceedings was an impetus for the Board and parties to consider a generic ROE formula approach and a single proceeding for setting capital structures for all utilities.

1.4 Deregulation and Unbundling of Alberta Electric Utilities

20. For many years there were only two investor-owned electric utilities in Alberta, Alberta Power Limited and TransAlta Corporation. Prior to deregulation of the electricity market in Alberta, these two investor-owned utilities were "fully integrated" utilities, consisting of generation, transmission, distribution, and retail functions.

21. In 1996, the provincial hourly power pool was set-up and the process of unbundling the electric utilities was underway. At the beginning of 2001, the electric utilities were unbundled into the components of generation, transmission, distribution, and retail service.

22. New generation and competitive retail were completely deregulated as to rate of return. Existing generation became quasi-regulated as the physical generation plants sold off regulated 20-year contracts (or expected life of plant if less than 20 years) on their output in return for a more-or-less traditional regulated return. However the return would be realized through contractual payments rather than regulated in the traditional way. Once these 20-year contracts were approved by the regulator there was little further involvement of the regulator (with the exception that contractual disputes could be brought to the regulator). These contracts included a formula ROE similar to the NEB's formula and the formula subsequently adopted in Alberta in 2004.

23. The monopoly functions of electricity transmission and distribution remain fully regulated. The competitive retail functions are offered through competitive retailers and the distribution utilities are required to provide a regulated retail option.

24. The former integrated electric utilities created subsidiaries or divisions to separate their generation, transmission, distribution, competitive retail and regulated retail functions. In some cases portions of the former companies were sold off.

25. As a result of the unbundling, the former Alberta Power is now regulated by the AUC as two separate utilities, ATCO Electric Distribution and ATCO Electric Transmission. Alberta Power's retail function was eventually sold to Direct Energy Marketing Ltd. (although ATCO Electric remains ultimately responsible for the regulated retail function) and its generation (unregulated and or contracted under long term Power Purchase Arrangements) was retained by other ATCO subsidiaries. TransAlta elected to sell off its transmission function, which is now called AltaLink L.P. TransAlta's distribution function was also divested to eventually become FortisAlberta.

26. Beginning in 2004, the regulation of the rates charged by the municipally-owned electricity distribution utilities for Calgary and Edmonton came under the jurisdiction of the EUB, and now the Commission. The generation and transmission functions of the City of Edmonton had been under the Board's jurisdiction for many years. The transmission function of Calgary, Red Deer and Lethbridge came under Board jurisdiction in 2006.

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

regulated entities. It is the subsidiary utilities for which the Board, and now the Commission, was required to establish a regulated ROE and capital structure. This was referred to, by one expert witness in this proceeding, as the "dirty window" problem.

1.7 Alberta Energy and Utilities Board Decision 2004-052

33. In Decision 2004-052, the Board established that the generic ROE, for all of the companies for which it was required to establish a fair return, should be set at 9.6 percent for 2004. The Board applied the generic 9.6 percent ROE to all companies uniformly, but adjusted the equity ratio for each company, or group of companies in a single sector, to account for differences in risk.

34. The Board also approved an annual ROE adjustment formula, as follows:

$ROE_t = 9.60\% + [0.75 \times (YLD_t - 5.68\%)]$
where YLD_t = the forecast long-term Canada bond yield for year t.

35. For the purposes of the formula, the Board also adopted the NEB's approach to establishing the forecast for long-term Canada bond yields, calculated as the average of the 3-month-out and 12-month-out forecasts of 10-year Canada yields as reported in the Consensus Forecasts issue in November of the previous year, plus the average of the daily difference between the 10-year and the 30-year Canada bond yields for the month of October in the previous year, as reported in the National Post.

36. As stated earlier, the Board determined that it would seek the views of parties on whether the adjustment mechanism continued to yield a fair ROE prior to the establishment of the common ROE for the year 2009. The Board 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. Additionally, any party, at any time, would be free to petition the Board to consider a review of the adjustment formula, or to exempt a particular party from its application. The Board recognized that there would be an element of judgment involved in determining whether circumstances had changed sufficiently to warrant a review, and that the ROE and adjustment mechanism determined by the Board should be entitled to a presumption of reasonableness, with any party seeking early review or an exemption bearing the onus of demonstrating that circumstances had rendered them unreasonable. The petitioning party would bear the onus of demonstrating a material change in facts or circumstances to merit a review of the adjustment formula or an exclusion from the formula.

37. The following table provides the results obtained under the Board's generic ROE annual adjustment formula from 2004 to 2008 and what the result would be if it applied in 2009:

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.

42. The annual adjustment formula adopted by the Board assumed that the fair ROE for Alberta utilities would increase or decrease by approximately 75 percent of any change in the risk free rate, as represented by long Canada bonds.

1.9 Context for Decision

43. It is of assistance in understanding the evidence provided in this Proceeding to review the context in which it was prepared. Observations put forward by parties on increased economic globalization, the performance of financial markets, the financial performance of utilities, anticipated infrastructure expansions in Alberta and the advent of the current financial crisis that began to develop in 2007, all form part of this context and influence the evidence upon which the Commission must determine a fair return on equity for Alberta utilities for 2009.

44. The utilities provided contextual evidence on the financial markets since the issuance of Decision 2004-052. They pointed to the growing differential between corporate bond yields and the government bonds used in the annual ROE adjustment formula (which compresses the spread between corporate bond yields and the formula ROE) as evidence that the formula was not producing a fair ROE.

45. AltaLink noted that the allowed ROE of 9.6 percent, established in the 2004 GCC Decision, was 4.13 percent higher than the average yield for "A" rated Canadian corporate bonds during 2004, the first year under the adjustment formula. It then noted that the spread gradually decreased from mid-2005 to mid-2007 indicating that the corporate bond yields were increasing while the formula ROE was decreasing.[16]

46. The utilities also submitted that the current credit crisis has resulted in credit spreads widening and yields on corporate bonds increasing substantially, while the yield on government bonds is decreasing. AltaLink stated the following with respect to the impact on utilities of the current credit crisis:

> Significant and fundamental changes have occurred in global capital markets since the 2004 GCC Decision was issued, and in particular since August 2007 when financial markets were adversely impacted by the collapse of the ABCP [Asset Backed Commercial Paper]. The global impact of the ABCP collapse resulted in a step change in global financial markets, as evidenced by the significant increase in corporate credit spreads. In response to the ABCP collapse, the central banks in Canada and most major countries lowered interest rates and injected massive amounts of cash into their economies to maintain liquidity and stabilize capital markets. Government of Canada bond yields dropped significantly in the months following the ABCP collapse, particularly for 10-year maturities, while yields on A-rated corporate debt increased dramatically. In addition, the widening of credit spreads between 10-year and 30-year Government of Canada securities following the onset of the ABCP crisis confirms that global financial markets were becoming increasingly risk averse, demanding higher returns for longer-term corporate debt instruments (as shown in Firuge1.2a above).
>
> The fundamental changes in global capital markets resulting from the ABCP collapse have been overshadowed by the recent collapse in global financial markets that has effectively shut down issuance of corporate debt and equity. This continuing crisis is occurring notwithstanding the fact that central banks around the world have taken unprecedented measures, such as the $700 billion bailout of U.S. banks. While

[16] Written Evidence of AltaLink Management Ltd., Exhibit 57.03, pages 4-7.

> 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.

49. Interveners cautioned the Commission against overreacting to the credit crisis. Dr. Booth, on behalf of CAPP, stated:

> Overall, and despite the current turmoil in financial markets I would recommend that the AUC continue with its formula ROE adjustment. It has stood the test of time in delivering fair and reasonable ROEs and by and large removed an enormous amount of repetitive ROE testimony to allow the AUC to deal with more important issues.[20]

50. Leading into the oral hearing in the Proceeding there was considerable uncertainty and there were several conflicting views on how quickly the economy and debt and securities markets would recover. Some evidence was led to indicate that credit spreads were again narrowing and that the financial markets may be starting to recover. However, parties disagreed on the extent and duration of the impacts of the financial crisis on the economy as a whole and on utilities in particular.

51. Notwithstanding the issues and economic developments discussed above, the Commission observes that since the issuance of Decision 2004-052 in July 2004 and before the onset of the economic crisis, there had been few indications that the adjustment formula was not producing an appropriate annual ROE. Decision 2004-052 and the annual formula had resulted in a range of ROEs with a high of 9.60 percent and a low of 8.51 percent well within the off-ramp triggers set out in the Decision of 7.6 percent and 11.6 percent. Further, until the present Proceeding, no party, other than ATCO Gas with respect to its equity ratio for 2008 and ATCO Pipelines with respect to ROE and capital structure for 2008, had requested a review of the generic formula or a change to the allowed capital structure determined in Decision 2004-052.

52. The Commission notes the National Energy Board (NEB) issued Decision RH-1-2008, Trans Québec & Maritimes Pipelines Inc., Cost of Capital for 2007 and 2008 (TQM Decision). TQM had been awarded an ROE set by the NEB's annual adjustment formula, which was almost identical to the Board's annual adjustment formula. TQM's allowed equity ratio was 30 percent. TQM requested an ROE of 11 percent on a deemed equity component of 40 percent. TQM had indicated this was equivalent to an After Tax Weighted Average Cost of Capital (ATWACC) of 6.9 percent.

53. The NEB found that financial conditions had changed since its formula was introduced. The NEB concluded that its ROE formula relied on a single variable, the long Canada bond yields, and that this may not be capturing all the changes in financial conditions.

54. The NEB looked at regulated returns as well as market based returns on various proxy groups including Canadian utilities and U.S. federally regulated and state regulated natural gas local distribution utilities and transmission pipelines. In its analysis, the NEB concluded that Canadian utilities are competing for capital on a global basis and Canada mostly interacts with the U.S. The NEB considered that comparisons to U.S. utilities were useful to its analysis.

55. The NEB approved a market-based ATWACC approach and allowed TQM an ATWACC of 6.4 percent and left TQM free to set its own equity ratio. This result was equivalent to

[20] Revised Evidence of Dr. Booth, Exhibit 292.03, page 4.

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.

> economy recovers to will be very different from the days of easy, cheap credit we have been used to.[22]

61. The utilities also submitted that since Decision 2004-052 fundamental financial market and economic changes have occurred which call into question the fairness of the returns supported by allowed ROEs set by the annual adjustment formula. Specifically, the dramatic decline in the ratio of government debt to GDP and resulting supply/demand imbalance for such instruments, and deep investor concerns over economic and financial market uncertainty, have been putting very heavy downward pressure on Government of Canada bond yields. The substantial and growing imbalance is resulting in seriously (and artificially) lower allowed ROEs under the annual adjustment formula. In addition, highly volatile spreads between the 10-year and 30-year Government of Canada bonds have been negatively affecting allowed ROEs. According to the utilities, these developments suggest there are fundamental issues with the viability of the formula.

62. With respect to equity ratios, the utilities generally argued that Canadian utilities have greater financial risk than U.S. utilities because U.S. utilities generally have higher allowed equity ratios. As a result, they argued the allowed overall rate of return for the utilities is significantly less than the overall return that investors can earn on other investments of similar risk.

63. The utilities further submitted that the Commission's existing approach to determining allowed ROEs and capital structures for Alberta's utilities does not satisfy the fair return standard laid down by the courts which requires a fair return to satisfy a fairness standard including a comparable investment standard, a financial integrity standard and a capital attraction standard. The ATCO Utilities also argued that a "fairness deficit" has prevailed for a decade when Alberta allowed returns are compared to allowed returns of U.S. utilities and that this deficit has grown in recent years under the current formula.

64. Utility experts submitted that 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 in awarded returns between Alberta utilities and their U.S. counterparts.

65. The utilities submitted that the economic and business environments of Canada and the U.S. are highly integrated and therefore exhibit strong correlations across a variety of metrics. Over the long term, a reasonable investor would prudently expect comparable returns from the two countries. The utilities submitted that business risk, including regulatory risk, is comparable between the two countries and would not justify a risk differential for similar investments, either in terms of awarded ROEs or the allowed equity ratios.

66. As a result, some utilities argued, they are not attracting equity capital on their own merit, and this is contrary to the stand-alone principle the Commission has embraced. Because utility affiliates in the unregulated sector are earning higher returns, utilities are drawing on parent company support for capital to withstand the low level of returns allowed by the Commission. In this regard the Commission notes the following exchange between Commission Counsel and Mr. Edmondson of the ATCO Utilities:

[22] Rebuttal Evidence of Susan D. Abbott, Exhibit 283.03, page 21.

> 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:

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[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.

> ***For the whole period, 1988-2007 the average Statistics Canada ROE for Corporate Canada is 9.1 percent.*** What this means is that the average firm in Canada does not earn the level of ROE requested by most of the companies before the AUC and yet as the chart shows there is considerable year to year volatility in the overall earned ROE. This also normally implies higher risk. The upshot is that Corporate Canada as a whole earns lower ROEs and faces higher risk that the companies regulated by the AUC.[28]

69. The interveners generally proposed that, after setting the test year return on equity and capital structures they recommend, the Commission should reaffirm the use of the annual adjustment formula for a further period of up to five years. They argued that Canadian utility shareholders have not suffered under the current regime. On the contrary, they argued that Canadian utilities with BBB-level credit ratings and above are successfully accessing financing both domestically and in the U.S., and that there is no reason to believe the current global economic downturn will have a material effect on the long-run cost of equity for Canadian utilities. Dr. Booth stated:

> These bond market problems have affected the equity markets with the biggest drop in the TSX for almost 70 years. However, the recent price performance of utility shares during 2008 reinforces their low risk characteristics. It has to be emphasized that investors see utility shares as "defensive" and their share prices have been supported by the significant drop in interest rates that have occurred, since their rich dividend payouts become more attractive as interest rates drop. Consequently there is ***no*** indication that investors perceive Canadian utility stocks to be any riskier than my traditional beta range of 0.45-0.55; in fact the most recent estimates ending in 2008 indicate an average beta coefficient below this level.[29]

70. In general, the interveners argued that risks have not changed greatly since the annual adjustment formula was adopted. Market risk is low for the utilities due to uniformly low levels of competition, and low credit and supply risks. They argued that there exists substantive differences in the risk exposure for Canadian and U.S. regulated utilities. Interveners filed evidence to suggest that U.S. companies are subject to significantly greater degrees of business risk, including regulatory risk, than are Canadian utilities. The alleged discrepancies between Canadian and U.S. returns stem from differences in business risk, not from a deficiency in the formula methodology. Price performance of utility shares in 2008 reinforces their low risk characteristics and attractiveness to investors. Dr. Safir, for CAPP, explained:

> A primary criticism of the formula determined ROE has been the historic discrepancy between the returns that Canadian utilities have been allowed under their respective formulas compared to the allowed rates that U.S. utilities have been awarded. Typically U.S. utilities have received higher allowed returns on equity than their Canadian counterparts, and this gap has widened in recent years. Citing this comparison, critics have suggested that the Canadian formula driven ROEs have fallen short of the "fair return" standards as they are legally defined in the Canadian system.
>
> It should be noted that this criticism explicitly assumes that Canadian regulators expose Canadian utilities to the same degree of risk that regulators in the U.S. expect U.S. utilities to bear. While I believe it is true that the basic objectives of regulation are similar in Canada and the U.S., differences in the effective application of regulation between

[28] Revised Evidence of Dr. Booth, Exhibit 292.03, page 28.
[29] Revised Evidence of Dr. Booth, Exhibit 292.03, page 2.

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.

1.12 Decision Outline and Summary

73. In the sections of this Decision that follow, the Commission:

- reviews the legal requirements of the fair return standard,
- considers the application of the fair return standard to the evidence before it,
- considers whether to continue to determine a generic rate of return on equity and account, for company-specific risk through adjustments to the equity ratio,
- determines the rate of return on equity,
- establishes the equity ratios for each of the utilities in this proceeding,
- assesses the merits of continuing to employ an annual adjustment formula, and
- sets out its Order.

74. While the evidence relied on and the reasons for each of the Commission's determinations are detailed in subsequent sections of this Decision, the Commission summarizes its findings here.

75. The Commission discontinued its annual adjustment formula and has set a revised generic ROE for 2009 determined, on a *de novo* basis, independently of the existing adjustment formula, and based solely on the record of the proceeding. 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.

76. The Commission has reviewed the models and approaches adopted by the various parties. Following the Commission's analysis, some of the CAPM and DCF results filed in this proceeding (including an analysis of the expected overall Canadian stock market returns) formed the primary basis for the Commission's ROE determinations. All of the Commission's analysis has been conducted in the context of, and having regard to, the uncertainties created by the current financial crisis that began in the third quarter of 2007.

77. The Commission has decided to change the equity ratios for each of the utilities by first increasing the equity ratio for each utility by two percentage points and thereafter adjusting upward or downward for sector-specific and company-specific factors.

78. In setting the equity ratios, based on the record of the Proceeding, the Commission considered: the risk to regulated utilities posed by the current credit environment, the evidence from credit metric analysis, and the evidence from an analysis of Canadian utility credit ratings and their corresponding equity ratios. The Commission also assessed, on the basis of the record of the Proceeding, the risk of each of the utility sectors and determined a relative ranking of risk for each sector. Company-specific matters were also examined. After considering and weighing all of this, the Commission set the equity ratios for 2009. As a consequence, while the Commission determined the equity ratios for each utility on a *de novo* basis, the analysis also focused on changes in risk since Decision 2004-052. The Commission believes that its awarded equity ratios will allow Alberta utilities on a stand-alone basis to target credit ratings in the lower A range. The following table sets out the awarded 2009 equity ratios for the utilities participating in this Proceeding.

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	
EEAI	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.

83. The rates allowed, and by implication the return on equity, must not be too low or too high. In *ATCO Gas & Pipelines Ltd.* v. *Alberta (Energy & Utilities Board)*[42] (*Stores Block*) the Supreme Court of Canada referred to academic authority on the principles of rate-making to state that "the regulated company must be able to finance its operations, and any required investment, so that it can continue to operate in the future,"[43] which "implies that shareholders should not receive 'too low' a return,"[44] however, "their returns should not be 'too high'."[45]

84. Both section 90(1) of the *Public Utilities Act* and section 37(1) of the *Gas Utilities Act* require the Commission to determine a rate base for a utility and to fix a fair return on rate base. Section 90(3) of the *Public Utilities Act* and section 37(3) of the *Gas Utilities Act* requires the Commission to give due consideration to all facts that in its opinion are relevant to fixing the fair return. Section 122(1)(a)(iv) of the *Electric Utilities Act* provides that the Commission when considering a tariff application for an electric utility must provide the owner of the electric utility with a reasonable opportunity to recover a variety of costs related to the capital invested in the utility including "a fair return on the equity of shareholders of the electric utility as it relates to the investment ….". While the words are slightly different among the several statutes, with respect to the return on the equity component of capital, the Commission considers the statutory requirements to be the same. The Commission must determine for each utility under its jurisdiction a fair return to be calculated on that portion of the capital invested in the utility determined by the Commission to have been financed by shareholder equity and provide each utility with a reasonable opportunity to realize that fair return.

85. Mr. Justice Rothstein speaking for the Federal Court of Appeal with respect to an appeal by TransCanada Pipelines Limited from a decision of the NEB described the cost of capital to a utility and the task required by the regulator in determining the cost of capital to be included with utility revenue requirement in the following manner:

> The cost of capital to a utility is equivalent to the aggregate return on investment investors require in order to keep their capital invested in the utility and to invest new capital in the utility. That return will be made in the form of interest on debt and dividends and capital appreciation on equity. Usually, that return is expressed as the rate of return investors require on their debt or equity investments.
>
> The rate of return on debt is not usually controversial. It normally consists of the weighted average interest rate for the test year on the utility's outstanding long-term debt. On the other hand, the rate of return on equity is often the subject of controversy and of much debate by expert witnesses.
>
> Unlike debt, where the interest rate payable is directly observable, the rate of return on equity cannot be accurately determined in advance. There are various methods experts use to estimate the rate of return on equity required by investors. The one adopted by the Board is an Equity Risk Premium methodology whereby the Board estimates a risk-free rate based on government bond rates and adds a risk premium to account for the risk associated with equity investment in a "benchmark" pipeline.

[42] *ATCO Gas & Pipelines Ltd. v. Alberta (Energy & Utilities Board)* [2006] S.C.J. No. 4, 2006 SCC4.
[43] Ibid. at paragraph 62.
[44] Ibid. at paragraph 62.
[45] Ibid. at paragraph 62.

> 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.*

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[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*).

Public Service Commission of the State of West Virginia[49] and *Federal Power Commission v. Hope Natural Gas Company*.[50]

88. The most authoritative source of guidance on the meaning of the term "fair return" is the Supreme Court of Canada's judgment in *Northwestern Utilities*. The Court was faced with the question of whether a predecessor board to the Commission had correctly set an allowed rate of return for a utility. In affirming the rate allowed, the Supreme Court first noted that the board had a duty "to fix fair and reasonable rates; rates which, under the circumstances, would be fair to the consumer on the one hand, and which, on the other hand, would secure to the company a fair return for the capital invested."[51] The Court then set the rule on what a "fair return" would be:

> By a fair return is meant that the company will be allowed as large a return on the capital invested in its enterprise (which will be net to the company) as it would receive if it were investing the same amount in other securities possessing an attractiveness, stability and certainty equal to that of the company's enterprise.[52]

89. Justice Smith, in a concurring judgment, also observed that:

> [t]he question of a fair rate of return on a risky investment is largely a matter of opinion, and is hardly capable of being reduced to certainty by evidence, and appears to be one of the things entrusted by the statute to the judgment of the Board.[53]

90. In *Bluefield* the Supreme Court of the United States was petitioned by a utility company that contended that its allowed rate of return was "too low and confiscatory."[54] In examining the company's claim, the Court answered the question of "[w]hat annual rate will constitute just compensation" by first observing that the answer "depends upon many circumstances and must be determined by the exercise of a fair and enlightened judgment, having regard to all relevant facts."[55] It then held that

> A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties[.][56]

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49 262 U.S. 679 (1923) (*Bluefield).*

50 320 U.S. 591 (1944) (*Hope).*

51 *Northwestern Utilities* at 192.

52 Ibid. at 192-193.

53 Ibid. at 199. The Supreme Court was faced with an appeal from a decision by a predecessor board to the Commission which lowered the allowed rate of return from the previously awarded 10% to 9% in light of changing conditions in the money markets. The Supreme Court affirmed the lowering of the rates allowed based on the decline in the interest rates.

54 *Bluefield*, at 692.

55 Ibid. at 692.

56 Ibid. at 692.

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,

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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.

> "1. That the investor should he able to obtain a return from his investment such as might alternatively be obtained from other investments of comparable risk and uncertainty;
>
> 2. The company should have sufficient income to enable it to attract additional capital as needed, without demanding that present investors dilute or subordinate their interests without compensation in favour of the, new investment;
>
> 3. That the company's financial integrity should not be impaired by reason of inadequate income."
>
> These principles are consistent with the principles, standards, criteria or tests which the courts in Canada and the U.S.A. and this Board have applied in determining the fair return or rate of return on common equity, although there are many variations in the approaches, methodology, techniques and judgments that have been used in applying those principles to a particular case.[65]

95. The Alberta Public Utilities Board went on to note in a manner similar to that expressed by Mr. Justice Smith in the *Northwestern Utilities* judgment:

> The Public Utilities Board Act requires the Board to fix a fair return on rate base; in doing so the Board finds it convenient and proper to consider a fair rate of return on each of the components of capital that is assumed will finance the rate base…[t]here is no mathematically or scientifically exact approach or method for the determination of the "fair return" on rate base which the Board can use, particularly with respect to the fair return on the common equity portion of capital which is assumed will finance a portion of the rate base. Any approach or method is largely dependent upon subjective judgments.[66]

96. In Decision 2004-052, the Alberta Energy and Utilities Board stated the following with respect to the fairness standard governing the rate of return:

> The Board notes that no party took issue with the general consensus that in order for a return to be fair, it must meet the tests of "comparable investment", "capital attraction" and "financial integrity" described in the above decisions. The Board concurs that the above decisions are the most relevant judicial authorities with respect to the establishment of a fair return for regulated utilities.[67]

97. The Commission notes that other regulators have also applied these tests. For example the National Energy Board referred to the fair return standard in this manner:

> The Board is of the view that the fair return standard can be articulated by having reference to three particular requirements. Specifically, a fair or reasonable return on capital should:
> • be comparable to the return available from the application of the invested capital to other enterprises of like risk (the comparable investment standard);

[65] Alberta Public Utilities Board Decision E77121, Calgary Power Limited Rate Application 1976 – Phase I (Released: August 11, 1977) at pages 75-76.
[66] Ibid. at pages 82- 83.
[67] Decision 2004-052 at page 13.

> • 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?

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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.

> A. DR. GASKE: I think it's being -- you need to meet all three and each one is a separate test so that it's possible to meet one and not the others.[74]

101. Similarly, during the same chain of questioning by the Chair, another witness Mr. Edmondson interjected:

> A. MR. EDMONDSON: I need to jump in here because I think it goes back to if up to be the Stanley Cup winner, you've got to win all four games; so it has to be in place --
>
> Q. But four out of seven, right?
>
> A. MR. EDMONDSON: Four out of seven, that's right; but until you get that fourth one in, until you have the third standard in there, I think you're offside on the fair return standard. ….
>
> But no, if it can be clearly identified that you're offside on one of the standards, then you're not meeting the fair return; and I think that's a problem. …[75]

102. CAPP expressed a different view. It argued that the three requirements of the fair return standard are "from an economic perspective, simply three ways of looking at the same thing."[76] Dr. Booth expressed this view in an exchange with Commission Counsel:

> There is one standard, there is just three ways of looking at it. In certain circumstances, for example, utility may not need to allow -- raise capital, and it's possible, in that situation, to give a rate of return that means they don't maintain their financial integrity, since they've already raised all of their capital.
>
> So each of these criteria are just parts of the same standard of being fair to the shareholders that have come up as a result of legal decisions in particular points in time. So if you give a fair rate of return then all these criteria are satisfied.[77]

103. CAPP went on to quote in its Argument from the *Hope* decision: "[r]ates which enable the company to operate successfully, to maintain its financial integrity, to attract capital, and to compensate its investors for the risks assumed certainly cannot be condemned as invalid, even though they might produce only a meager return on the so-called 'fair value' rate base."[78] CAPP stated:

> Has there ever been a time when a utility said that it was fair for it to get a meager return that was sufficient? Yet that is what *Hope* says.[79]

104. ATCO seemed to interpret the CAPP position and its citation to the *Hope* reference to the acceptability of "meager" returns as meaning that the Commission could provide a return that did not meet the comparability standard if the company was somehow achieving financial integrity and able to raise capital. ATCO sees this as an attempt by CAPP to support unreasonably low ROE recommendations by Dr. Booth. ATCO states:

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74 Transcript, page 1552, line 21 to page 1553, line 9.
75 Transcript, page 1555, lines 1-12.
76 CAPP Written Argument at paragraph 106, Exhibit 388.02.
77 Transcript, page 3485, line 20 to page 3486, line 7.
78 *Hope* at 605.
79 CAPP Written Argument at paragraph 127, Exhibit 388.02.

> 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

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[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.

> 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.[83]

107. The Commission notes with approval the following description by the ATCO Utilities of how the three factors or criteria of the fairness standard are assessed:

> In the ATCO Utilities' view, the assertion that the three-part test is "simply three ways of looking at the same thing" fails to recognize the critical fact that there are differing tests which help to "triangulate" a Fair Return. Each may have greater or lesser relevance depending upon the economic landscape upon which the tests are conducted. The frailty of reliance on only a single leg of the three legged stool for stability and reliability of the result over changing economic conditions should be obvious.[84]

108. After review and consideration of the legislation and the evidence, legal argument and case law referred to in this proceeding, the Commission reiterates its agreement that there are three criteria or factors to be employed in determining a fair rate of return. Each criterion or factor must be applied by the Commission when determining a fair return, but what constitutes a fair return (including capital structure) is a matter of judgment for the Commission, exercised after weighing all of the evidence and argument in the context of the facts observed in the marketplace.

109. In making these observations, the Commission does not consider that it is applying the three-part fair return standard differently than the Alberta Energy and Utilities Board has done in the past. Rather the Commission considers that it is consistent in both the description of the fair return standard and in the application of it in determining a fair return for Alberta utilities.

3 APPLICATION OF FAIR RETURN STANDARD

110. As discussed in the previous section of this Decision, the determination of a fair return on equity for Alberta utilities requires the assessment of three criteria: return on comparable investments, ability to attract capital and maintenance of financial integrity. As noted by Mr. Justice Rothstein in the *TransCanada Pipelines* decision cited above, the determination of the rate of return on equity for a regulated utility is difficult given that the correct answer is not readily apparent. This determination requires an expert tribunal to apply its judgment in assessing often conflicting evidence and to consider the differing interests and perspectives on risk of debt and equity investors. This exercise is made even more complex in Canada, and in Alberta in particular, given the limited number of stand-alone utilities issuing debt and the lack of any utilities that issue equity directly to investors. This fact which has partially resulted from deregulation and unbundling of utility services, corporate reorganizations creating utility holding companies, holding companies owning a mix of regulated and unregulated business and utility acquisitions was referred to in the oral hearing as interposing a “dirty window” between direct market evidence on cost of capital and the true cost of capital for Alberta utilities. This effect was described in an exchange between Commissioner Lyttle and Dr. Booth:

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[83] *Supra*, note 11.

[84] ATCO Utilities Reply Argument, paragraph 58.

> 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.

> concerns with certain methods of estimating ROEs, particularly the Discounted Cash Flow approach due to the limited number of publicly traded Canadian regulated utilities as well as insufficient analyst growth data. Looking to the U.S. helps to mitigate those data constraints.[86]

113. The utilities unanimously took the position that increasing globalization and integration of North American capital markets translated into a competition for capital with both debt and equity investors gravitating toward the highest return for similar risk investments wherever those returns were available in North America, if not globally. Utilities further submitted that the comparable investment, capital attraction and maintenance of financial integrity factors of the fair return standard all require the Commission when determining the fair return for Alberta utilities to consider utility return awards made by U.S. regulators trending toward an ROE of 11 to 12 percent on approximately 50 percent common equity.

114. The ATCO Utilities, supported by similar positions put forward by other utilities, particularly focused on the comparable earnings aspect of the fair return standard and contended that a comparison of average returns awarded by U.S. and Canadian regulators demonstrated the existence of a "fairness deficit" which has continued since 1996. This comparison showed that Alberta utilities have consistently been awarded lower regulated returns than their American counterparts. This differential has consistently widened under the existing ROE adjustment formula.

115. The utilities also claimed that the existing generic formula and capital structure of Alberta utilities were insufficient when assessed in light of the financial integrity factor of the fair return standard. In his Written Evidence, Mr. Coyne stated:

> **Q: DOES THE ALBERTA GENERIC RETURN OF 8.75 PERCENT SATISFY THE FINANCIAL INTEGRITY TEST?**
> A. No it does not. The returns generated by the generic allowed ROE in Canada and in Alberta, in many cases, do 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. As I have indicated previously in my testimony, the ratings agencies in Canada have allowed the Canadian utilities a higher degree of leverage than would generally be required of an investment grade utility company. Though the ratings agencies may be satisfied with the utility's ability to meet its debt obligations, the shareholders are left uncompensated for the increased risk associated with higher leverage.[87]

116. With respect to whether the existing generic formula and capital structure of Alberta utilities was sufficient when the capital attraction factor of the fair return standard was considered, Mr. Coyne stated:

> In addition, Canadian utilities are owned by diversified holding companies that are charged with the responsibility of attracting equity capital at the holding company level. The table below reveals that Canadian utility companies have much higher earned returns on equity at the consolidated level for purposes of attracting capital than those allowed for regulatory purposes.

[86] Written Evidence of Mr. Coyne, Exhibit 50.01, Section 3, page 41.
[87] Written Evidence of Mr. Coyne, Exhibit 50.01, Section 3, page 70.

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.

119. The Interveners cautioned against the use of U.S. utility proxy groups in drawing conclusions with respect to a fair return for Alberta utilities. Dr. Booth stated:

> Evidence from US natural gas and electric utilities indicates that while they generally have both higher allowed ROEs and more common equity than their Canadian peers, their financial strength in terms of bond ratings and market to book ratios is no better and usually worse. This implies that US utilities in general have higher business risk than Canadian ones. Only by specially choosing a ***sample*** of low risk US utilities can you form a sample of equivalent risk to the ***population*** of Canadian utilities. These low risk US utilities in turn have investment risk characteristics similar to Canadian utility holding companies.[91]

120. The utilities also pointed to the decision of the NEB in RH-1-2008 Trans Québec & Maritimes Pipelines Inc. (TQM Decision) as demonstrating the evolution of Canadian regulatory practice to include recognition of U.S. market-determined return data, as opposed to regulatory returns as informative and directly applicable to establishing a fair return for Canadian utilities.

121. Interveners urged the Commission to discount or dismiss the evidence and argument filed by the utilities with respect to the applicability of U.S. return data. Interveners maintained that differences in the regulatory and legislative environment between the two countries including differences in utility risk, test periods, length and frequency of negotiated settlements, integration of regulated and unregulated businesses, the mix of utility segments or functions within a single regulated utility, variability of utility earnings, currency, tax, fiscal policy, and the preference by U.S. regulators for the DCF method in determining utility returns, are substantial and verifiable reasons to disregard U.S. returns in determining a fair return for Alberta utilities, both historically and prospectively.

122. Interveners further contended that there exists a supportive Canadian regulatory environment which reduces risk for Canadian utilities and this is reflected in the consistently higher bond ratings for Canadian utilities despite historically lower awarded returns than their U.S. counterparts. Dr. Safir expressed this view as follows:

> The revenue protections afforded by the AUC to its regulated utilities are substantial and continue to provide them with a safety net that distinguishes their risk profile from comparisons with U.S. pipelines and LDCs.[92]

123. The treatment of evidence with respect to U.S. utility returns and capital structure became one of the most contentious issues in this proceeding. The utilities submitted that the concerns raised by the EUB with respect to the comparability of U.S. utility returns in Decision 2004-052 have either been eliminated entirely or substantially dissipated and that it is now time to correct the fairness deficit. Interveners took the position that the concerns expressed by the Board with respect to the use of U.S. data on utility returns remain valid today.

124. The Board's concerns were summarized in Decision 2004-052 as follows:

> In the Board's view, the Applicants did not demonstrate that the regulatory regimes in the two countries are sufficiently comparable that the Board should place significant weight on the return awards for US utilities. For example, the Board notes differences in

[91] Revised Evidence of Dr. Booth, Exhibit 292.03, page 3.
[92] Revised Evidence of Dr. Safir, Exhibit 292.04, page 4.

> 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.

127. The utilities pointed to the deregulation of capital markets and changes in Canadian tax policy designed to increase the cross-border flow of capital including the elimination of the foreign property rule which had limited registered retirement and pension plans to no more than 30 percent foreign investments and the elimination of withholding tax on cross-border interest payments. They also pointed to the increased investment by Canadians in the U.S. market and the issuance of Canadian securities in Canada by U.S. investors, so called Maple Bonds, as evidence of the integration of the North American markets. The utilities suggest these developments clearly demonstrate that Alberta utilities must compete for capital with alternative investments of similar risk on a North American basis. The utilities also point to the recent financial crisis and the impacts on world markets as a result of issues primarily arising in the United States as further evidence of the tying together of the world's economies.

128. Dr. Booth appearing on behalf of CAPP acknowledged the higher degree of integration of the North American market but dismissed its impact on the determination of a fair return for Alberta utilities in the following discussion with Commission Counsel:

> Q. Some of the utilities in this proceeding have urged the Commission to take note of the globalization of the Canadian marketplace since the last generic cost of capital proceeding. They referred to it as the elimination of the foreign property rule for RSPs and registered pension plans, the elimination of withholding tax and cross border interest payments, and the advent of Maple bonds being issued in Canada in Canadian dollars by foreign issuers. The utilities also point to the TQM decision by the National Energy Board as recognition by a Canadian regulator that times have changed. Why aren't these positions valid?
>
> DR. BOOTH: There is a huge difference between saying there has been increased capital flows and saying that the world lives in a market where it's integrated. So there is absolutely no question we've got increased capital flows. If you ask me what percentage of my portfolio is in equity stocks and what percentage is in the US, I'd admit that I've got significant component in US stocks. And I think there is no question that investors in Canada have increased, diversified into foreign markets. The question, though, is how are those security prices determined? And in finance we have what we call the law of one price. If there is one worldwide market for oil, which there is, then there is basically an oil price and it's one global market. But that's not the same in the equity market. The equity markets are not fully integrated; they are not fully segmented the way they possibly were 50 or 100 years ago. We've always had capital flows in and out of the United States. The question is, Are the security prices in Canada determined in exactly the same way as they are in the United States, and how has this globalization affected the market risk premium and equity prices? Globalization diversification reduces risk, so we know that. In fact, a lot of the testimony the company witnesses refer to specifically refer to diversification. Diversification reduces risk, doesn't increase risk. So this globalization should result in lower risk premiums globally. So that's one very important feature. The other very important feature is that we live in a world of a partially integrated, partially segmented capital market. There has been research done to look at what determines the prices of Canadian securities. Some of them are determined more in an integrated market and some in a more segmented market, depending upon whether their characteristics appear desirable for international investors. In terms of utilities, the unfortunate fact is there is not much in Canadian utilities to appeal to foreign investors because they are basically close to bonds, in which case their investment characteristics don't make them attractive to foreign investors. And one of the information requests we asked the foreign security holdings in TransCanada has been dropping. The more you get closer to a pure utility, the less interesting the debts dock is for foreign investors. Foreign investors are interested in our resource stocks because they are interesting, they are valuable. They

> 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:

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

> Q. Well, sir, given that a lot of parties are involved in arbitraging between the US and Canadian markets, that parties are involved in hedging on a regular basis, that, to use your words, it works in the bond market because our cash flows are very predictable, why doesn't AltaLink do that?
> A. MR. BRONNEBERG: Why do we not look at US capital markets?
> Q. Yes, sir. Given all those advantages and the ease in which you can do it in the market?
> A. MR. BRONNEBERG: I've worked in the US capital markets before. I think that companies that have significant US dollar cash flows have natural hedges against currency fluctuations and would be able to match up their currency flows in the two countries with a reasonable degree of comfort. AltaLink has zero US dollar cash flows, and so it would have to go out and buy hedging positions in respect of all of its US debt repayment and US interest payment obligations. You can't do that for 30-year debt without assuming a significant amount of risk. I mean we've seen the Canadian dollar float from 60 cents to $1.10 in the last five to ten years. Those are pretty significant fluctuations and I think that exposes ratepayers to a significant amount of risk that we don't think is appropriate. As long as we have reasonable access to the Canadian debt markets -- and, you know, in our situation, we have owners who we look to contribute the equity that we need. There is absolutely no reason why you would go into the US capital markets.[95]

133. The following exchange occurred between Ms. Abbott, an expert witness appearing for AltaLink, Mr. Bronneberg and Counsel for the UCA:

> Q. Would you agree that, nevertheless, TransCanada's US financing creates currency exposure?
> A. MS. ABBOT: It does, but if they have US revenues, then that currency exposure is covered in -- to a certain extent. I haven't done an analysis of TransCanada, so I can't tell you how well that hedges exposure, but AltaLink would not even have that.
> Q. You would agree, subject to check, that TransCanada uses hedges to reduce or eliminate currency exposure?
> A. MS. ABBOT: Subject to check, sure, but that is still -- it's expensive. It's an exposure they have. It's something the rating agencies are not particularly sanguine about when a company who doesn't have any revenue in a particular currency borrows in that currency. It's a risk that they would look at as being unnecessary.
> Q. Does the management of AltaLink have the same views as Ms. Abbott?
> A. MR. BRONNEBERG: I think that the concept of AltaLink going into the US, regardless of the credit rating, is just unthinkable.[96]

134. Mr. Engen, an investment banker appearing on behalf of the ATCO Utilities when asked the question by Commission Counsel "[w]hen a Canadian utility looks for capital, it's primarily going to be looking to sources of capital from Canada and those sources of capital have an opportunity to invest anywhere in the world?", replied "[t]hat's correct."[97]

135. The Commission concludes that while the equity and debt markets for Alberta regulated utilities is primarily Canadian investors who primarily look to Canada when making utility investment decisions, the integration of the North American markets ensures that investments across North America are risk-adjusted in the market place in order to provide comparable

[95] Transcript, page 220, line 4 to page 221, line 7.
[96] Transcript, page 116, lines 3-22.
[97] Transcript, page 1427, lines 4-8.

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 Document[98] 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]

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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.

141. Mr. Coyne undertook a comparison of U.S. and Canadian utilities with respect to operating or business risk and concluded:

> Based on my analysis, I conclude that there are no significant operating risks borne by the U.S. utilities that are not shared by the Canadian utilities. For purposes of this analysis, I view the U.S. and Canadian companies to be comparable, although not identical, in terms of operating risk.[102]

142. Mr. Coyne also noted that there are no macroeconomic factors such as dissimilarities between the U.S. and Canada in economic growth, inflation or unemployment which would warrant significant differences in investor expectations.[103]

143. Dr. Vander Weide noted:

> The risk of investing in electric and natural gas utilities is similar in the U.S. and Canada because: (1) U.S. electric and natural gas utilities rely on essentially the same electric and natural gas technologies to deliver their services to the public as electric and gas utilities in Canada; (2) the economics of electric and natural gas transmission and distribution is similar in the U.S. and Canada; and (3) U.S. electric and gas utilities are regulated under similar cost-based regulatory structures and fair rate of return principles as Canadian utilities.[104]

144. The Commission agrees that the business risks, other than regulatory risks, of the utility business are similar between Alberta utilities and counterparts in the U.S. With a few exceptions, utilities on both sides of the border utilize similar capital intensive fixed cost infrastructure and employ the same technologies in delivering their services, have similar operating and reliability standards and face similar commodity supply and demand dynamics. The Commission would also agree that while there may be some short-term differences in investor expectations between the two countries arising from macroeconomic factors given the relative impact of the current financial crisis on the U.S. and Canadian economies, in the longer run microeconomic factors should not result in an appreciable difference in investor expectations.

3.2.2 Comparability of U.S. and Canadian Regulatory Risk

145. The utilities generally took the position that although there are some differences in the statutory and regulatory framework governing utilities in the U.S. and Canada, most of these differences were small and did not materially impact the relevance of awarded returns in determining a fair return for Alberta utilities. What differences there are may result in some minimal increased regulatory risk for U.S. utilities but given that the regulatory principles were fundamentally the same in the two countries, these differences are insufficient to affect the return required by investors. The ATCO Utilities stated the following in written Argument:

> Utilities on both sides of the border are subject to the same cost of service regulatory model, which affords approximately the same level of regulatory protection. Any differences between the two regulatory models employed by either country are largely nuanced, are virtually indistinguishable to an investor or even a stakeholder in these

[102] Written Evidence of Mr. Coyne, Exhibit 50.01, Section 3, page 46.
[103] Written Evidence of Mr. Coyne, Exhibit 50.01, Section 3, starting at page 59.
[104] Written Evidence of Dr. Vander Weide, Exhibit 57.04, pages 14-15.

> 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. Interveners 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. Interveners 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 interveners conclude that U.S. return data can not be used in any material way in setting a fair return for Alberta utilities.

148. Both interveners 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 interveners 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.

150. As noted above, Dr. Vander Weide stated:

> U.S. electric and gas utilities are regulated under similar cost-based regulatory structures and fair rate of return principles as Canadian utilities.[107]

151. Dr. Safir on behalf of CAPP noted the arguments raised by the utilities that the basic regulatory philosophies between the U.S. and Canada were similar and accordingly the risks were fundamentally similar. He then observed that there also existed similar regulatory philosophies for the banking sectors in the two countries; however the recent financial crisis clearly demonstrated that regulatory oversight of the sector in the two countries was substantially different.[108] Dr. Safir summarized the differences in U.S. regulatory policy and approach which directly impacts business and regulatory risk for U.S. pipeline utilities which have no parallel in Canada:

> **Q34 Is it appropriate to compare the rates of return and equity thickness for U.S. pipelines to that of Canadian utilities in Alberta?**
> A34 No. There are significant differences in the business risk faced by U.S. pipelines and utilities in Canada which makes such comparisons inappropriate
>
> **Q35 What are the reasons for these differences?**
> A35 To a large degree this diversity stems from differences in pipeline regulation. This includes overt differences in the regulatory compact and balancing protections afforded to Canadian and U.S. pipelines. In addition, there are competitive differences between U.S. and Canadian markets. Although Canadian pipelines "interact" with U.S. markets, they operate primarily in the Canadian market, and are therefore subject to a different set of conditions. The differences as perceived by the market between U.S. and Canadian pipeline risks can be illustrated by using historical comparison of U.S. and Canadian pipeline circumstances in the 1980s-1990s. During this period, U.S. pipelines were subject to take or pay exposure, transportation brokering, and market-determined pipeline construction. As a result, over this same time frame, U.S. pipelines took real losses that were not experienced by Canadian pipelines. Pipeline ownership in U.S. carried higher risk then. It also carries higher risk now, as reflected in rates of return and equity bands.[109]

152. Dr. Safir also described the differences in regulatory philosophy relating to U.S. and Canadian local distribution companies (LDCs):

> **Q37 Why do you believe U.S. LDCs face more regulatory risk?**
> A37 It is clear that over the past two decades U.S. regulatory philosophy has placed an increased importance on the reliance of market forces as a substitute for hands on regulation. As a result, there have been more instances when regulators have adopted new and untested rules or policies that have called for more emphasis on market forces. This has led to unexpected consequences and, commensurately, an unexpected exposure to business risk.
>
> For example, the state of California jumped whole heartedly into electricity deregulation in the late 1990s, calling for divestiture of generation assets from LDCs. State regulators

[107] Written Evidence of Dr. Vander Weide, Exhibit 57.04, pages 14-15.
[108] Revised Evidence of Dr. Safir, Exhibit 292.04, page 19.
[109] Revised Written Evidence of Dr. Safir, Exhibit 292.04 at pages 18-19.

> 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 lead 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.

> with PG&E in California, as evidenced by these nuclear cost disallowances. And those are risks that I think investors do take into account when they determine the cost of equity required to invest in these businesses.[114]

157. Differences in regulatory risk are further explored below.

3.2.2.2 Federal Energy Regulatory Commission

158. In considering the respective regulatory environments of the U.S. and Canada, the Commission considered the impact of segmentation of regulatory authority in the U.S. The Commission considers the differences in regulation between the federal regulator, Federal Energy Regulatory Commission (FERC), which regulates the interstate transmission of electricity, natural gas, and oil and state regulation, to be substantial enough to create additional regulatory risk for interstate electric and gas transmission utilities. These differences include FERC policies aimed at the encouragement of competition, incorporation of regulatory incentives to promote new investment and the encouragement of regional electric transmission. This view is supported by the following testimony by Dr. Vander Weide in addressing a question from Commission Counsel with respect to the comparability of FERC allowed returns:

> Q. And sir, could you just explain the difference you noted between how state regulators and the FERC come to conclusions with respect to rate of return?
> A. Well, it's not just the conclusions, it's not just how they arrive at their conclusions but it's the way the interstate markets are organized compared to the intrastate markets. The FERC has had a more aggressive policy of introducing competition into the electric transmission and especially the natural gas transmission markets, and so those markets tend to be viewed as being a little bit more risky than -- at least from the US perspective than the markets for intrastate electric and gas operations, which are more -- are local or regional in nature. So the costs of equity awarded at the FERC tend to reflect that difference in risk compared to state. I've only looked at the state allowed rates of return, and I haven't looked at the same kinds of companies that the FERC usually looks at when they consider pipelines or when they consider electric interstate transmission operations. To be conservative, I looked at the least-risky segments which were the state-regulated segments.
> Q. So, sir, are you then concerned or would you treat as suspect comparability analysis between FERC cost of capital results for electric and gas transmission utilities comparing that to Alberta utilities?
> A. Well, Alberta has transmission -- has special transmission risks associated with gas and electric. As I've indicated, to be conservative I decided to focus on just the lower risk parts of it, so I didn't attempt to use the FERC database to assess the risks of electric transmission and natural gas transmission in Alberta.
> Q. And again, sir, is that because you're concerned about comparability with Alberta utilities?
> A. You know, I didn't go far enough to assess the comparability. I just felt that it would be -- it would be a little more conservative approach to look at returns at the state level for the companies that -- either the allowed returns at the state level or the estimated returns for companies that were primarily involved with state-regulated activities.[115]

159. The observation that FERC regulation may lead to higher regulatory risk leads the Commission to discount allowed FERC returns from a consideration of the appropriate fair

[114] Transcript, page 837, lines 19-21.
[115] Transcript, pages 2183-2184.

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]

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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.

162. Specifically with respect to the use of deferral accounts, the Commission notes the following comment of Mr. Coyne:

> Deferral accounts arguably reduce, to some extent, the risk of utilities because the accounts are intended to allow for the recovery of certain costs over a specified period of time. The deferral account helps the utility to stabilize the volatility of its quarterly cash flows and earnings, and to improve the utility's opportunity to earn its authorized rate of return. However, deferral accounts cannot fully eliminate the utility's risk because they are subject to a prudency standard.).[119]

163. The use of deferral accounts in Alberta and the additional legislative provisions requiring a utility to proceed with direct assign electric transmission projects and the legislative protections provided with respect to direct assign projects was the subject of an exchange on risk faced by Alberta TFOs between Mr. Frehlich, Chief Operating Officer of AltaLink and Commission Counsel:

> Q. And sir, aren't some of these business and operational risks mitigated by the history of backstopping arrangements that you've had with the AESO for projects like the last 500kV, the number of deferral accounts that deal with direct-assign projects, and the provisions of the transmission regulation, in particular, Section 39, which allows a TFO to include in its tariff, preconstruction costs incurred up to the -- incurred by the TFO with direct-assign projects, up to the issuance of permit and licence, including feasibility studies, engineering, purchase of materials and rights of way?
> A. MR. FREHLICH: Mr. McNulty, in response to your question. As it relates to, I'll pick a point in time, 2004, when we were last in the generic cost of capital process, the majority of the risk mitigation methods that you describe were already in place at that time. So there is not a material change from 2004 in that domain. The TFO has always been able to recover their prudently incurred costs, preconstruction and post-instruction, into the rate base. What we're describing here is essentially, as we go through this build there will be an increase in the execution risk for us as a business. And it's essentially to provide that, directionally, business risk is increasing compared to 2004. It's in support of Mr. Vander Weide's evidence that our fair return should be set at 38 and 11.
> Q. Sir, what I'm trying to understand is where the real risk is. If you have deferral accounts to cover your direct-assign projects that cover the actual versus the forecasted costs, if you have deferral accounts that deal with the changes in the forecast versus actual debt, if you have Section 37 -- sorry, 39 of the transmission regulation that allows you to recover preconstruction costs whether the project goes ahead or not, where is your risk other than the fact that you need to be prudent in what you spend?
> A. MR. FREHLICH: We use that term in such a short sentence that it seems like it's such a simple thing to do, to effectively execute billions of dollars worth of projects prudently. The fair return for our organization should be set based on the risks our business is exposed to; deferral accounts for direct-assigns have been placed prior to 2004. So the risk as a company that we're exposed to, is exactly that, the prudency risk; and it is the ability to effectively execute all of those projects prudently, is what the risk is that we're exposed to.[120]

[119] Written Evidence of Mr. Coyne, Exhibit 50.01, Section 3, page 56.
[120] Transcript, page 287, line 23 to page 290, line 4.

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:

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[121] AR 86/2007, as amended.
[122] Transcript, page 1147, lines 6-17.

> Q. …As you know, we've heard there is a lot of evidence from -- a lot of expert evidence on the record regarding U.S. and Canadian risk comparisons and opinions on that as to how the U.S. and Canada are -- according to Ms. McShane, for example, there is a narrowing of the gap between U.S. utilities and Canadian utilities from a risk perspective. And looking at your evidence, obviously you were not asked to comment on that, but you mentioned that Canadian regulation generally in Alberta, regulation specifically, makes greater use of forecasts, future test years than does American regulation, and then you go on to say this aspect of Canadian regulation renders it somewhat more supportive of utilities.
>
> That's one glimpse into your thinking on that. I'm just wondering what your opinion is, generally, on the narrowing of the gap or where we're at today with respect to that issue.
>
> Is Canada closer in risk to risk levels to US utilities or not?
>
> A. MR. MARCUS: I'm going to start by saying when you look at financial analysis of utilities, you have to start by saying what is a utility. I know that's an elementary question, but many of the items that are called utilities by the U.S. financial services have large amounts of deregulated generations attached to them so that you don't have -- you have a limited number of pure play wires utilities. And when you look at, for example, an analysis of discounted cash flow of US utilities, you will find that the ones that have unregulated generation tend to have higher costs of capital, higher returns under the DCF method.
>
> So you've got a little bit of a measurement problem there, but then when you turn to regulation, I would have to say honestly that there have been some moves in parts of the United States to relax things, but there is still the preponderance of the States are on historical test years, and some of them have some fairly stiff regulations on how you deal with historical test years.
>
> As I say, there has been some relaxing. I know one of the States I work in has moved towards letting in information up to six months after the end of the historical test year. There are a few States that are future, but most of them still are historical.
>
> There may be some areas where the United States is moving where Canada isn't on some of the issues such as decoupling of sales from revenues. Now, some utilities like it and some utilities don't. I think it's generally gas utilities like it and electric utilities are -- you know, some of them do and some of them don't.
>
> I've seen a little more of that over the last few years. I think Alberta has taken a fairly large step in that direction, but with the weather normalization mechanism for ATCO Gas, that probably covers off about 80 or 90 percent of that decoupling risk on the gas company side.
>
> So I would say there has been -- on the just pure regulatory side, there has been a little bit of a narrowing. I'm not sure I would take it as far as Ms. McShane has taken it.[123]

168. While U.S. utilities have benefited from the application of some of the attributes of Canadian regulation identified by Dr. Booth above and while the differences in regulatory practice between the U.S. and Canada may be narrower than they may have been at the time that the EUB last considered this matter, on the whole the Commission considers based on the evidence before it that these attributes are more pervasive in Canada and continue to suggest that Canadian utilities enjoy a more supportive regulatory environment and have less regulatory risk than their American counterparts. Further, the Commission considers that the reliance on historical test years and the DCF methodology[124] by the majority of U.S. regulators are further

[123] Transcript, page 3036, line 15 to page 3038, line 22.

[124] In response to a question from Commission Counsel Mr. Gaske stated at Transcript, page 1128, lines 12-16:

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 given[127] 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.

171. Also with reference to the possibility of credit downgrades suggested by Mr. Coyne, a related discussion occurred between the Chair and Dr. Vilbert, expert witness appearing on behalf of AltaGas. Dr. Vilbert referred to the acquisition of Canadian Bond Rating Services (CBRS) by Standard & Poor's (S&P) in October 2000 and the possibility that this would lead to downgrading of Canadian utilities.

> DR. VILBERT: I know that S&P when it took over CBRS had expressed some concern about that factor; that they were looking at the credit metrics and saying, gee, they would not ordinarily justify the A ratings that many Canadian utilities have, and they had, I think, initially put out a warning that there might be some downgrades. Subsequently that has not happened, to my knowledge.[131]

172. Mr. Coyne referred to a 2003 S&P report that followed the take over of CBRS which stated:

> Based on a wide-ranging reassessment of business and financial risk among Canadian utilities, Standard & Poor's is now questioning the appropriateness of placing exceptional analytical reliance on the positive influence of regulatory factors in its analysis of Canadian utilities.[132]

173. Mr. Coyne then went on state:

> I am not aware of any updates to S&P's broad assessment in this regard, but I would surmise that the growing gap between U.S. and Canadian ROE's and equity ratios would only serve to underscore these concerns.[133]

174. The Commission finds it very informative that despite concerns over the credit metrics of certain Canadian utilities by bond rating agencies, and in particular following the acquisition of a Canadian bond rating agency (CBRS) by an American firm (S&P), that the credit ratings have not materially changed. This appears to confirm the position expressed by Dr. Safir noted above that "[t]his is exactly what you would expect if Canadian Utilities faced lower business risks."

175. Another market indicator remarked on by Mr. Coyne in his evidence is the differences in beta[134] between U.S. and Canadian utilities. Mr. Coyne first makes the following observation about the differences in financial risk between Canadian and the U.S. proxy group of utilities:

> The capital structure of Canadian utilities is much more highly leveraged than for the U.S. proxy groups (41% common equity for Canadian utilities versus 55% for U.S. Gas and 49% for U.S. electric), which suggests that Canadian regulated utilities have significantly higher financial risk, attributable to the higher percentage of long-term debt carried on their balance sheets.[135]

176. Mr. Coyne then draws some conclusions with respect to beta differences:

> The Beta for Canadian utilities is lower than that for the U.S. proxy groups. This implies that Canadian utility equity returns move less with the broader market than do the U.S.

131 Transcript, page 2435, line 23 to page 2436, line 4.
132 Written Evidence of Mr. Coyne, Exhibit 50.01, Section 3, page 55.
133 Written Evidence of Mr. Coyne, Exhibit 50.01, Section 3, page 55.
134 Beta is defined in Section 6.2 below.
135 Written Evidence of Mr. Coyne, Exhibit 50.01, Section 3, page 51.

> 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 evidence[137] 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:

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[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.

> A. DR. KRYZANOWSKI: I'll discuss the total risk. If you look at the betas, they are quite a bit higher in the US, and if you look at Sharpe ratios which look at excess returns, in other words actual returns minus the risk-free rate divided by total risk, the standard deviation, they are quite comparable in both countries, okay?
>
> So the compensation, given the risk level, is fairly comparable in both countries which indicates that even on a total risk basis, the Canadian companies have lower risk.
>
> A. DR. ROBERTS: If I could just add finally, another way of looking at that, that we talked about before, to come back to it, to say the total risk is -- there is two pieces - the business risk and the financial risk. And of course, what you're referring to, regulation, would be a piece of business risk.
>
> So if we look at what else we know about it, and you have a debate about the business risk and the role of regulation, one way to get at it is to look at how bond rating agencies look at it because they look at total risk in order to determine their ratings. And we know they give comparable ratings, or slightly higher ratings, depending on which sample you look at, to the Canadian companies, which suggest that they think the total risk is similar to that of the US utilities or maybe even a little bit lower.
>
> The other factor we know is we can observe the amount of debt that utilities have by looking at the ratios, and we see the Canadian utilities, as many of the other experts in this hearing have already pointed out, they have more debt, higher leverage ratios. So if they have higher leverage ratios, they have more financial risk.
>
> So what we know is total risk is either the same or lower for the Canadian utilities; the financial risk piece is higher. So then if you back out, well, we don't know for sure, what we're debating is the business risk. So if the total risk is about the same and one piece of business risk is higher, the financial side, to us that suggests that the other piece that we're looking at, the business risk part, has got to be lower otherwise it doesn't add up. And part of that business risk is what you're asking about which is the regulatory part.[139]

179. Although the Commission acknowledges the argument that lower betas in Canada may be related to utility earnings being predicated upon a formula, the Commission accepts the overall conclusions of Drs. Kryzanowski and Roberts with respect to the implications of the lower Canadian beta and that it reflects both financial risk and business risk. If financial risk is higher in Canada, because of lower common equity ratios for Canadian utilities, then lower Canadian betas must mean that business risk, including regulatory risk, for Canadian utilities is lower than it is for U.S. utilities. If the beta is higher in the U.S. than in Canada for utilities, indicating that the business risk in Canada is lower (since the financial risk in higher), it suggests that the allowed returns should be lower in Canada.

180. The Commission also notes with approval Dr. Safir's analysis of risk between the U.S. and Canada and the greater variability in utility earnings in the U.S.

> Because of the differences in regulation between the two countries, U.S. pipelines are subject to comparatively more risk. Typically in Canada, tolls are adjusted annually, keeping pipeline earnings close to their allowed returns. However, in the U.S., rate hearings are much less frequent. Where rates are regulated infrequently, there is a higher probability that revenues and costs will diverge over time. Therefore, it is more likely that pipeline revenues will either exceed or fall short of costs. The ability and widespread practice of pipelines in negotiating and discounting rates, also contributes to more

[139] Transcript, page 3039, line 5 to page 3040, line 20.

> 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. Safir[142] 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.

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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.

> Q. Now, I'm hearing that in order to get a closer approximation of the cost of capital for Canadian utilities, you're relying on Canadian bond index to track that, not an American bond index to track that, despite the fact they are comparable in terms of risk and in cost to capital issues?
> A. MR. COYNE: Yes, they track each other very closely. We have an index and a chart in my evidence in a shows that. But if I have an index -- if I had an index that measures Canadian utility cost of capital, I'm repeating myself, but it only makes sense to use it. To the extent that there is any potential for divergence, I have managed that by using the Canadian index.[144]

185. The Commission finds it of interest that Mr. Coyne indicated a preference for a Canadian utility bond index in an adjustment formula in order to remove the potential for divergence in the utility bond markets of the United States and Canada.

186. The relative risk between Canadian and American utilities from the perspective of credit rating agencies was the subject of an exchange between Ms. Abbott and Commission Counsel. Ms. Abbott, who appeared on behalf of AltaLink in the proceeding, has over 20 years of experience at Moody's Investors Service. Her responsibilities, for a portion of that time included utility ratings worldwide.

> Q. Can I ask you, ma'am, to turn back to page 36 of your evidence. 57.05.
> A. MS. ABBOTT: Okay.
> Q. Page 36.
> A. MS. ABBOTT: Yes?
> Q. Line 732.
> Q. The last line of that page, line 732, you indicate the average U.S. utility is rated BBB, and that there are no longer AAA companies?
> A. MS. ABBOTT: Yes.
> Q. Would that suggest that U.S. utilities are riskier, on average, than Canadian Utilities?
> A. MS. ABBOTT: Yes.
> Q. Could higher risk for US utilities justify a higher ROE and common equity ratio for US utilities when compared to Canadian Utilities?
> A. MS. ABBOTT: It could, yes.
> Q. Ms. Abbott, do you recall in the recent GTA hearing, you were asked by the Commission counsel about rating agency concerns about execution risk and the risk of having cost disallowed because they were found to be imprudent. And in your answer you refer to the State of Illinois. And if you'd like to turn it up, it's transcript volume 7, page 1083. At line 9.
> A. MS. ABBOTT: Line 9. Okay.
> Q. Your statement there was:
>
> "There is a very different regulatory scheme in the States than there is in the Province of Alberta and a different record in terms of costs."
>
> Do you see that, ma'am?
> A. MS. ABBOTT: Yes.
> Q. What did you mean when you say the regulatory scheme in the US is very different than it is in Alberta?
> A. MS. ABBOTT: Well, first of all, there is 50 different states and there are 50 different regulatory procedures in the States. And there are very few that have as many adjustment clauses as does Alberta; and there are none that I know of where companies are mandated to -- to build projects in the States.

[144] Transcript, page 1076, line 25 to page 1077, line 12.

> 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.

189. The Commission has had to assess a great deal of evidence with respect to the comparability of awarded returns for utilities in the United States. The utilities urged the Commission to consider the rates of return awarded by U.S. regulators on the basis that the risks faced by investors in utilities in Canada are comparable, if not higher than they are in the United States. If the risks are comparable for a proxy group of U.S. utilities then the awarded returns on that proxy group should be considered as a means of gauging the comparable return available to investors, the returns needed by Alberta utilities to attract investment and the returns required in order to maintain the financial integrity of Alberta utilities. Therefore, returns awarded by U.S. regulators should be used by the Commission in determining the fair rate of return for Alberta utilities. Canadian utilities must compete for capital from investors who are free to invest their capital where it will provide the highest return on comparable risk. Interveners have submitted that the regulatory risk and therefore the total business risk of U.S. utilities is not comparable to Alberta utilities and accordingly, the allowed returns on U.S. utilities should not be considered by the Commission.

190. In the sections above the Commission has reviewed the evidence relating to the comparability of risk and the use of U.S. data on allowed returns. For the reasons stated above, the Commission has determined to exclude return information on FERC regulated utilities. With respect to U.S. data on allowed returns for natural gas and electric LDCs and other state regulated utilities, the Commission finds, based on the evidence and analysis referred to above, that the regulatory risk faced by these U.S. utilities in general remain materially higher than the regulatory risk of Alberta utilities. As a consequence, the returns awarded by U.S. regulators for U.S. LDCs would be expected to reflect this materially higher level of risk leading the Commission to conclude that U.S. allowed returns should not be used in determining a fair return for Alberta utilities.

191. The Commission also appreciates the significance of investor perceptions of regulatory risk and to the extent U.S. utilities may be perceived to be riskier than Canadian utilities it will impact the return expectation of equity investors. The perception of risk of equity investors was discussed in the following exchange between the Chair and Dr. Vilbert:

> Q. …. If the perceived risk of Canadian utilities is lower than the perceived risk of American utilities, then the perceived potential for default is lower in Canada, which means that the perceived probability of the equity holders being stuck for the remainder is lower; is that right?
> A. DR. VILBERT: I think I followed the full train of what you said, and I think I also agree with it. There's a bunch of "ifs" in your hypothesis.[147]

192. Any discussion of allowed returns must necessarily consider both ROE and capital structure in assessing the comparability of utility returns in the U.S. and Canada. In this regard the Commission notes the following discussion between Ms. McShane and Commission Counsel:

> Q. Thank you, ma'am, but I'm just trying to understand whether or not the fact that management selects the capital structure that's then approved by the utility for U.S. utilities could be one influencing factor as to why common equity ratios are as high as they are and they have not come down with the absolute reduction in risk.

[147] Transcript, page 2440, lines 15-22.

> 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 inevitability 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.

> see is the result of this as reflected through the marketplace with all of its other influences. This, of course, is an important driver because if you are a regulated utility, that is where your income comes from. It's that applied to your book value.

197. As noted in the *Northwestern Utilities* a fair return must allow a utility the opportunity to recover a return on capital invested as it would receive investing the same amount in other securities possessing an attractiveness, stability and certainty equal to that of the utility. None of the original equity investor, a subsequent investor or a prospective utility equity investor can take its invested capital, or the capital it proposes to invest in one utility, and redeploy it to an investment in another utility of comparable risk (where a pure play utility investment is available) unless it is prepared to invest at market prices. The existing or prospective equity investor in one utility cannot take its capital and invest it in another utility at a price equal to the underlying book value of that other utility's assets where the market to book ratio is greater than one. Consequently, even if the Commission had determined that U.S. utilities were utilities of comparable risk to Alberta utilities, where the market to book ratio of a U.S. utility is greater than one, an investor in securities of that utility at market prices will not receive a return on its investment equal to the return allowed by that utility's regulator. Rather, an equity investor's total return on an investment made at market prices (putting aside foreign exchange risk and tax implications of any cross-border investments) will be a function of dividend policy and share price required by, or set in the market in light of the market's perception of the riskiness of the investment. Financial markets react quickly to adjust prices so that investors receive similar expected (risk adjusted) rates of return from all the various alternative investments. Dr. Kryzanowski remarked on this result in response to a question from Commission Counsel:

> Q. And having gone through all those adjustments, even after those adjustments, is the stipulated return, for example, 12 percent on 50 percent common equity, is that even available to an investor, given that they have to pay market price to obtain the investment in the first place?
> A. DR. KRYZANOWSKI: Remember that that's an ROE, and an ROE is an accounting type of rate of return. Basically what you're interested in is market-based returns. So market prices will adjust to reflect the ROEs.[149]

198. Dr. Booth noted the following in an 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.[150]

199. The Commission considers that while allowed returns awarded to selected proxy groups of utilities in the United States may be relevant in informing the Commission of how other regulators have assessed the fair return for utilities within their respective jurisdictions, allowed

[149] Transcript, page 3016, lines 3-11.
[150] Transcript, page 3395, lines 1-12.

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

> utilities in the States are being allowed more rate of return, higher rate of return on a higher equity thickness than their contemporaries in Canada.[151]

202. The Commission also finds support for its conclusions with respect to the use of expected market based returns rather than returns awarded by U.S. regulators in the following extract from a discussion between Dr. Vander Weide and the Chair:

> Well, in the US if one regulator looks just at what other regulators are offering, there is a circularity involved there. Rather than just looking at the -- cost of equity is determined in the marketplace. And let me give an example. Let's take Illinois versus California, say, and let's suppose the regulator in Illinois kind of ignores the market evidence and says "Let me just look at what the California regulators are doing and give the same rate of return as the California regulators." That would be circular, and I don't think anyone is suggesting that one ought to ignore the market evidence on the fair rate of return.[152]

203. In the above sections of this Decision the Commission has determined that sample proxy groups including U.S. utilities provided in evidence do have comparable business risk other than regulatory risk and that expected market determined returns in respect of these utilities may be informative to the Commission in determining a fair rate of return for Alberta utilities. Analyzing market based returns for U.S. utilities may be particular significant given the dirty window concerns with using data relating to Canadian holding companies discussed above (a concern also applicable to the U.S. data) and the circularity involved in setting allowed returns through a comparison to Canadian utilities whose returns have been set through a formulistic adjustment mechanism. As pointed out by Mr. Coyne and referred to above "[t]o 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."[153]

204. The Commission also notes the following comments of Dr. Vander Weide with respect to market based data on U.S. utilities:

> As discussed in my original filed evidence in this proceeding, there are several advantages to using U.S. utilities groups as comparables for the purpose of estimating the cost of equity for Canadian utilities. First, U.S. utilities groups include a significantly larger sample of companies with traditional utility operations than available Canadian utility groups. Second, reasonable estimates of expected growth rates are available for U.S. utilities, whereas the same data are not available for Canadian utilities. Third, reliable historical risk premium data for U.S. utilities are available for a much greater length of time than for Canadian utilities.[154]

205. In subsequent sections of this Decision the Commission will review the market based return data available on the record in respect of the sample U.S. utility proxy groups and employ this data in its CAPM and DCF determinations.

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151 Transcript, page 2430, line 11 to page 2432, line 8.
152 Transcript, page 2254, lines 8-19.
153 Written Evidence of Mr. Coyne, Exhibit 50.01, Section 3, page 41.
154 AUC-Vander Weide-011(b), Exhibit 263.01.

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. Interveners 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, 2009[156] 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 ATWACC[157] 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

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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.

the NEB, several similarities exist with respect to the conclusions reached by the two regulators on the use of U.S. financial data in determining a fair return.

212. The NEB concluded and the Commission agrees that comparable investments do not necessarily have to be wholly or mostly regulated enterprises: non-regulated enterprises are generally expected to have higher risks than regulated ones and the presence of unregulated operations in a sample set of utility or holding companies implies that the estimated costs of capital are likely higher than they would otherwise be.[158]

213. The NEB concluded and the Commission agrees that there is a greater variability between actual and allowed earnings for U.S. utilities when compared to Canadian utilities due to higher short-term risks imbedded in the U.S. regulatory environment.[159]

214. The Commission notes that while the TQM Decision used U.S. litigated returns as a check[160] in conducting its ATWACC analysis it also placed principal weight on market derived returns from investments of similar risk rather than on allowed returns.

> The Board finds that financial market data results, properly derived, yield estimates of sample companies' true underlying costs of capital. This is because, in the Board's view, the underlying cost of capital is driven by investors' expectations as expressed in financial markets, and allowed returns are only one of many factors influencing these expectations.[161]
>
> The Board was informed by all of the financial market returns comparable groups presented as evidence by both parties. Consistent with the Board's decision in Chapter 4 to rely on a market-based ATWACC methodology, the Board has put principal weight on market-determined returns as opposed to regulatory returns. These market-determined returns of companies found to be of comparable risk to TQM, combined with the market-value capital structure, provide the Board with crucial information for determining TQM's cost of capital for 2007 and 2008.[162]

215. The Commission has determined to consider U.S. market based return data for U.S. utilities in its analysis. As mentioned above, the NEB indicated that the U.S. market based return data was "very informative for determining a fair return for TQM." The weight to be placed on U.S. utility expected market based return information by the Commission will be discussed in subsequent sections of this Decision when it addresses CAPM and DCF cost of equity estimates.

4 STANDARDIZED APPROACH

216. In Decision 2004-052, the Board adopted a standardized approach with a single generic ROE to be applied uniformly to all the utilities, and then adjusted for any differences in risk among the utilities by adjusting their individual equity ratios. The equity ratios for each company then remained constant throughout the generic cost of capital regime, since 2004. Throughout, the annual ROE was adjusted yearly using the annual adjustment formula.

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158 TQM Decision, page 71.
159 TQM Decision, page 67.
160 TQM Decision, page 69.
161 TQM Decision, page 69.
162 TQM Decision, pages 71-72.

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.

estimates based on the Capital Asset Pricing Model (CAPM), the Discounted Cash Flow Model (DCF), the comparable earnings test, ROE awards by U.S. regulators, ROE awards by Canadian regulators, market- or price-to-book values, returns on high grade bonds, returns arising from negotiated settlements, and the return expectations from pension and investment managers. In addition, the Commission heard that specific adjustments to ROE might be required for some utilities. On the strength of this evidence, the Commission was presented with the following recommended ROEs for the utilities.[166]

Table 6. Summary of ROE Recommendations[167]

	2009 Formula Based (%)	Recommended by Utility[168] (%)	Recommended by UCA[169] (K&R) (%)	Recommended by CAPP[170] (Booth) (%)
Electric and Gas Transmission				
ATCO Electric TFO	8.61	10.5	7.9	7.25
AltaLink	8.61	11	7.9	7.25
ENMAX TFO	8.61	11	7.9	7.25
EPCOR TFO	8.61	11	7.9	7.25
ATCO Pipelines	8.61	12	7.9	7.25
Electric and Gas Distribution				
ATCO Electric DISCO	8.61	10.6	7.9	7.25
ENMAX DISCO	8.61	11	7.9	7.25
EPCOR DISCO	8.61	11	7.9	7.25
ATCO Gas	8.61	11	7.9	7.25
FortisAlberta	8.61	11	7.9	7.25
AltaGas	8.61	11	7.9	7.25
Retailers				
EEAI	8.61	11	7.9	7.25

5.2 Capital Asset Pricing Model

223. The capital asset pricing model is a well-accepted and theoretically-grounded economic model for valuing securities based on the relationship between non-diversifiable risk and expected return. CAPM is based on the principle that investors need to be compensated in two ways; for the time value of money and for risk. In the model, the time value of money is represented by the rate that compensates the investor for placing money in a risk-free investment over a period of time (the risk-free rate). The second part of the model considers risk and estimates the compensation that the investor needs for taking on the risk that the expected return will not be realized. This element of risk is calculated by taking a risk measure (beta) based on the statistical relationship between the historical returns for the investment security relative to the historical returns for the market as a whole, over time. Beta is a risk measure that describes how sensitive the expected return of a security is to the market. Hence, CAPM calculates the expected return for a security as the rate of return on a risk free security plus a risk premium.

[166] The 2009 formula-based calculation is also shown.

[167] The utilities' and interveners' ROE recommendations were made in conjunction with their equity ratio recommendations.

[168] 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.

[169] Evidence of Drs. Kryzanowski and Roberts, Exhibit 179.02, page 9.

[170] Booth Revised Evidence, Exhibit 292.03, pages 3, 86 and 112.

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.

Table 7. CAPM Recommendations

Expert Witness	Risk-free Rate (%)	MERP (%)	Market Return	Beta	Utility Risk Premium (%)	Flotation Allowance (%)	ROE (%)
Dr. Booth	4.25[173]	5.0[174]	9.25	0.50[175]	2.5[176]	0.50[177]	7.25[178]
Drs. Kryzanowski & Roberts[179]	4.75	5.1	9.85	0.52	2.65	0.50	7.90
Mr. Coyne U.S. Gas DCs[180]	4.44	6.25[181]	10.69	0.80	5.0	0.50	9.95
Mr. Coyne U.S. Elec. DC	4.44	6.25	10.69	0.81	5.1	0.50	10.0
Mr. Coyne N.A. Gas Trans	4.32	6.25	10.57	0.90	5.6	0.50	10.47
Mr. Coyne Canadian Utilities	4.13[182]	6.25	10.38	0.72	4.3	0.50	9.14
Dr. Vilbert Canadian Utilities[183]	4.5	5.75	10.25	0.63	3.62	0.50	8.6
Dr. Vilbert U.S. Gas DCs[184]	4.5	5.75	10.25	0.78	4.49	0.50	9.5
Dr. Vilbert U.S. MLPs[185]	4.5	5.75	10.25	0.57	3.28	0.50	7.9

227. Dr. Booth based his CAPM analysis on Canadian data only, as did Drs. Kryzanowski and Roberts. Mr. Coyne provided multiple CAPM analyses based on U.S. and Canadian data, as did Dr. Vilbert. With respect to Dr. Vilbert's CAPM analysis for his U.S. proxy groups, the Commission will not consider his analysis of Master Limited Partnership (MLP) pipelines. Dr. Vilbert used his MLP pipeline proxy group to derive a recommended ROE for NGTL. Now that the Commission is no longer required to establish a fair return for NGTL, the Commission finds that this proxy group is not representative of the companies at issue in this proceeding. In addition, the Commission observes that Mr. Coyne, on behalf of the ATCO Utilities (including ATCO Pipelines) did not include MLP pipelines in his proxy groups. Finally, the MLPs have structural differences and investor tax implications which differentiate them from most Alberta utilities.

[173] Booth Revised Evidence, Exhibit 292.03, page 18.
[174] Booth Revised Evidence, Exhibit 292.03, page 82, Market Risk Premium higher than the experienced premium over almost any period but accounts for the unexpectedly high returns on bonds in recent decades.
[175] Booth Revised Evidence, Exhibit 292.03, pages 79 and 82.
[176] Booth Revised Evidence, Exhibit 292.03, page 82 (and 5% times 0.50 = 2.5%).
[177] Booth Revised Evidence, Exhibit 292.03, page 86.
[178] Booth Revised Evidence, Exhibit 292.03, page 86.
[179] Exhibit 179.02, Evidence of Drs. Kryzanowski and Roberts, page 9.
[180] Exhibit 50.01, Evidence of James M. Coyne, Table JMC-05.
[181] Exhibit 50.01, Evidence of James M. Coyne, pages 29-30. Market risk premium based on the average of the experienced market risk premium of 7.1 percent in the U.S. from 1926 to 2007 and 5.4 percent in Canada from 1936-2007.
[182] Exhibit 50.01, Evidence of James M. Coyne, page 27, based on October 2008 Consensus Forecasts of the 10-year rate plus the September 2008 average spread between 10-year and 30-year government of Canada bonds.
[183] Exhibit 52.02, NGTL Evidence, Dr. Vilbert. Table MJV-10.
[184] Exhibit 52.02, NGTL Evidence, Dr. Vilbert. Table MJV-20.
[185] Exhibit 52.02, NGTL Evidence, Dr. Vilbert. Table MJV-26.

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 Economics[189]. 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.

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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.

5.2.2 Market Equity Risk Premium

234. The next element of the CAPM analysis is the market equity risk premium (MERP). Parties recommended different market equity risk premiums.

235. Dr. Booth estimated the market equity risk premium at 5 percent noting that "[t]his is significantly higher than the experienced market risk premium earned in Canada over almost any time period, but takes into account the unexpected performance of the bond market, due to declining long Canada bond yields, and the reduction in risk in the bond market compared to a few years ago."[191] Dr. Booth demonstrated, upon reviewing historical data, that conditions in the bond market prior to 1956 were substantially different from what they had been since. In his view, this was due to an increase in bond market returns, commensurate with an increased risk in investing in government bonds, arising from government deficits and inflation. Consequently, he said, much of the drop in the market risk equity premium since 1956 was caused by an increase in the risk of investing in long Canada bonds, not by a decline in equity returns. With a reduction in government deficits since the mid 1990s, the yields on government bonds have declined and, by comparison, the market risk equity premium has increased.[192]

236. Drs. Kryzanowski and Roberts employed four methods to estimate the market equity risk premium, relying primarily on the first and using the remaining methods to confirm the findings from the first. They based their initial analysis on a blended average of the arithmetic and geometric mean market equity risk premiums for the time period from 1952 to 2008 because "the exclusive use of the arithmetic mean MERP results in an overstatement of the prospective MERP, and that the exclusive use of the geometric mean MERP results in an understatement of the prospective MERP."[193] This analysis yielded a market equity risk premium of 4.20 percent. Drs. Kryzanowski and Roberts then conducted a survey of Canadian and U.S. market equity risk premium estimates as reported in recent studies published in refereed journals. From this survey, they concluded that a forward-looking market equity risk premium for Canada is not more than 5.10 percent.[194] Their third estimate was based on the DCF estimation method, again concluding that a forward-looking market equity risk premium for Canada is not more than 5.10 percent. Finally, Drs. Kryzanowski and Roberts undertook a survey of knowledgeable professionals to confirm their estimate of the market equity risk premium. They concluded, again, that a forward-looking market equity risk premium for Canada is not more than 5.10 percent. On the basis of their findings from these four analytical methods, and a number of other "balancing" considerations discussed in their evidence, and further providing for an allowance for estimation error, they forecast a market equity risk premium of 5.10 percent for an "average-risk" utility for 2009.[195]

237. Mr. Coyne estimated the market equity risk premium as the mid-point of the long horizon equity risk premium data averaged over the longest period for which data were available from Morningstar Ibbotson for both the U.S. and Canada. The analysis for the U.S. data from 1926 to 2007 yielded a 7.10 percent market equity risk premium. The results for Canada from 1936 to 2007 yielded a market equity risk premium of 5.40 percent; and from 1939 to 2007, the U.S. Ibbotson data yielded a 5.80 percent market equity risk premium. Based on this analysis,

[191] Dr. Booth Revised Evidence, Exhibit 292.03, page 82.
[192] Dr. Booth Revised Evidence, Exhibit 292.03, page 81, line 18 to page 82, line 10.
[193] Drs. Kryzanowski and Roberts Evidence, Exhibit 179.02, Section 3.3.1.1.3.
[194] Drs. Kryzanowski and Roberts Evidence, Exhibit 179.02, Section 3.3.1.2.2.
[195] Drs. Kryzanowski and Roberts Evidence, Exhibit 179.02, Section 3.3.1.5.

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]

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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.

243. Mr. Coyne used adjusted betas from Value Line and Bloomberg to develop his beta estimates. He argued for the use of adjusted betas on the grounds that "an individual company beta is more likely than not to move towards the market average of 1.00 over time" and "it is necessary to adjust forecasted betas toward 1.00 in an effort to improve forecasts."[201] [202]

244. Mr. Coyne calculated betas for four proxy groups, a U.S. Gas Distribution proxy group at 0.80, a U.S. Electric Distribution proxy group at 0.81, a Gas Pipeline group with a mix of Canadian and U.S. utilities at 0.90, and a Canadian proxy group at 0.72.[203]

245. Dr. Vilbert used three proxy groups to estimate betas, a Canadian utilities sample, a gas local distribution company sample with both Canadian and U.S. companies and a sample of Master Limited Partnership pipelines with both Canadian and U.S. companies. He calculated rolling beta estimates using monthly excess returns over the previous 60 months. Market returns were represented by either the S&P/TSX or the S&P 500 indices, as appropriate, and risk-free rates were taken as Canadian and U.S. 91-day T-bill returns, as appropriate, employing Value Line unadjusted betas for his Gas LDC and MLP pipeline samples and Bloomberg unadjusted betas for the Canadian sample.[204] For the reasons noted previously, the Commission did not consider Dr. Vilbert's analysis for MLP pipelines.

246. Dr. Vilbert modified his Canadian beta estimates by using adjusted betas, noting that the result of his initial analysis did not yield "an accurate measure of the relative risk of the sample companies in many of the periods."[205] He argued for adjusted betas because he considered his Canadian sample to be sensitive to interest rate changes and noting that "the 60-month betas for the Canadian Utilities sample are still increasing from their lows of the "tech bubble" period."[206] On the basis of this analysis including the adjustments, Dr. Vilbert recommended a beta for Canadian utilities of 0.63 but qualified his estimate as downward biased because "the period of turmoil in the market that resulted in low or negative beta estimates is still included in the estimation period."[207]

247. Drs. Kryzanowski and Roberts based their beta estimate on an analysis of 60 months of return data on actual market transactions for a sample of ten Canadian publicly traded utility holding companies.[208] Drs. Kryzanowski and Roberts calculated the average betas of 0.315 for the period 1992 to 2008, and 0.583 for 1990 to 1994. The means of the mean cross-sectional betas for the first five, middle five, and the last (most recent) five rolling five-year periods were 0.539, 0.150 and 0.255, respectively. They stated that there is no evidence that the normal tendency of this sample of utility betas is to revert back to a market beta of one and therefore, there is no justification for using non-standard (adjusted or inflated) betas.[209] On the basis of

[201] Exhibit 50.01, Section 3.0, Coyne Evidence, page 28.
[202] Mr. Coyne referenced studies by Blume to support his use of adjusted betas, the same references cited by Drs. Kryzanowski and Roberts in their explanation of the rationale for using adjusted betas.
[203] Exhibit 50.01, Section 3.0, Coyne Evidence, page 15.
[204] Vilbert Evidence, Exhibit 52.02, page 50.
[205] Ibid. page 51.
[206] Ibid. page 55.
[207] Ibid. page 56.
[208] Exhibit 179.04, Evidence of Drs. Kryzanowski and Roberts, Schedule 3.13.
[209] Exhibit 179.02, Drs. Kryzanowski and Roberts, pages 178-180.

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.

> regulated utilities are generally not quite that risky relative to the market, that a .65 is a relatively reasonable market estimate of what the beta should be.[216]

253. The Commission understands that estimating a beta for Canadian stand-alone utilities is difficult. The experts in this proceeding have employed a variety of techniques, data sets and considerable professional judgment in their beta proposals. Dr. Vilbert's comments with respect to the challenges of calculating a beta for Canadian utilities speaks to this challenge.

> ... the concern I do have is that it's been consistently difficult over the last ten years or so that I've been working in Canada to estimate the betas for your utility companies … I bet you I've tried a dozen different ways to estimate the betas and I will tell you that from proceeding to proceeding, the method I think I've finally figured out how to capture the essence of the risk of these companies as likely as not doesn't work the next time.[217]

254. In the Commission's judgment, Dr. Booth's recommended beta of 0.50 represents a reasonable lower bound for beta for stand-alone Canadian utilities. The Commission recognizes that Dr. Vilbert's analysis was intended to modify his unadjusted Canadian sample results to account for his judgment that the unadjusted results were not adequately representative of forward looking expectations, which is consistent with Dr. Booth's rationale for adjusting his beta recommendation. The Commission finds Dr. Vilbert's Canadian beta estimate of 0.63 to be a reasonable upper bound for beta for stand-alone Canadian utilities. The Commission notes that the beta recommendation of Drs. Kryzanowski and Roberts falls within the range of 0.50 to 0.63 discussed above.

5.2.4 Flotation Allowance

255. The parties all agreed that a flotation allowance is normally included in the CAPM model to account for the administrative costs and issuance costs for the investment banker, any impact of under-pricing a new issue, and the potential for dilution. The CAPM calculations presented in the Proceeding and included in the Commission's Table 7 above include the usual regulatory convention of adding 0.50 percent to the CAPM estimate. The Commission agrees that a flotation allowance of 0.50 percent is warranted.

5.2.5 The Commission's Resulting CAPM Estimate

256. Applying its findings on the individual components of CAPM, the Commission calculates a range of CAPM ROE results for stand-alone Canadian utilities of 6.63 percent to 8.12 percent, without the flotation allowance. With a flotation allowance the Commission calculates a CAPM ROE range of 7.13 percent to 8.52 percent.

5.3 Discounted Cash Flow Model

257. The Discounted Cash Flow Model is used to estimate the cost of a company's common equity based on the expected dividend yield of the company's shares plus the expected future dividend growth rates. The DCF method calculates ROE as the rate of return that equates the estimated future stream of dividends with the current share price.

[216] Transcript, page 2424.
[217] Transcript, page 2422.

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.

Expert Witness	Dividend Yield	Stage 1 Growth Rate	Stage 2 (if applicable) Growth Rate	Indicated ROE (%)	Flotation Allowance (%)	ROE (%)
Dr. Vilbert 11 U.S. Gas LDCs - single-stage	See Schedule	See Schedule	n.a.	8.8	0.50	9.3
Dr. Vilbert 11 U.S. Gas LDCs - multi-stage	See Schedule	See Schedule	4.8%	8.8	0.50	9.3
Dr. Vilbert Subset of the 11 U.S. Gas LDCs - single-stage	See Schedule	See Schedule	n.a.	8.3	0.50	8.8
Dr. Vilbert Subset of the 11 U.S. Gas LDCs[224] - multi-stage	See Schedule	See Schedule	4.8%	8.5	0.50	9.0

261. Mr. Coyne applied the DCF model to the same set of proxy groups he used in his CAPM analysis. He calculated the current dividend yield for each company in each proxy group by dividing the annualized current dividend by the 90-day average stock price. Mr. Coyne argued that the 90-day average period was long enough to eliminate short-term trading volatility but still short enough to reflect recent value. This calculated dividend yield was increased by one-half of the assumed growth rate to reflect the expected growth in dividends over the coming year.[225] To these dividend yields, he applied a growth rate forecast based on forward-looking growth estimates from Value Line, Zacks Investment Research, Thomson First Call and Bloomberg for each of the proxy companies,[226] in some cases averaging the estimates where they were not available for specific companies, and adjusting for any outliers in the data.

262. To calculate his final DCF results, Mr. Coyne added the expected dividend yield to the average growth rate. He calculated a low DCF result by taking the lowest of the available growth rates for a given company plus the expected dividend yield for that anticipated level of growth and the high DCF result in the same manner. He then averaged the low, mean and high company-specific DCF results to obtain "unadjusted DCF results" for each proxy group. Finally, Mr. Coyne added a 50 basis point allowance for flotation, as he had with the CAPM model.

263. Mr. Coyne's DCF analysis yielded the following ROEs for each of his proxy groups.[227]

Table 9. Summary of Mr. Coyne's DCF Analysis

Proxy Group	Low (%)	Mean (%)	High (%)
U.S. Natural Gas Distribution Utilities	8.82	10.24	11.77
U.S. Electric Distribution Utilities	9.78	10.20	10.60
Gas Transmission Pipelines	10.14	11.73	13.38
Canadian Utilities	10.02	10.79	11.69
Average	9.69	10.74	11.77

[224] Exhibit 52.02, Tables MJV-17 and 18.
[225] Exhibit 50.01, Section 3.0, Coyne Evidence, page 98.
[226] Ibid. page 99.
[227] Exhibit 50.01, Section 3.0, Evidence of J. Coyne. page 26, line 22.

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.

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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.

270. With respect to the analyses of Dr. Vander Weide and Mr. Coyne, the Commission considers that DCF growth estimates that exceed the expected growth in GDP over the long run are unrealistic, particularly for a stand-alone regulated utility. Dr. Vander Weide's DCF estimates assumed dividend growth rates that frequently exceeded the expected Canadian GDP nominal growth rate of 5 percent to 6 percent, including inflation.[233] Mr. Coyne's DCF analyses similarly forecast dividend growth rates that are, for all but one of his proxy groups, above the expected GDP nominal growth rate. For this reason, the Commission rejects the results of the DCF analyses of both Dr. Vander Weide and Mr. Coyne.

271. Dr. Vilbert provided DCF results for both a sample of Canadian utilities and a sample of U.S. gas utilities. He provided single-stage and multi-stage growth estimates in his DCF analyses. The Commission considers his multi-stage growth estimates, which employed a growth assumption of 4.1 percent beyond 11 years, to be informative. Dr. Vilbert's Canadian sample multi-stage DCF rate of return estimate was 8.38 percent before flotation. Dr. Vilbert's multi-stage DCF estimate, based on 11 U.S. gas utilities, was 8.8 percent before flotation.

272. In Dr. Vilbert's Canadian proxy sample, the unadjusted DCF results for Emera Inc., with holdings consisting of mostly regulated utilities, was 8.8 percent including a 0.50 percent flotation adjustment. Dr. Vilbert's unadjusted DCF result for Fortis Inc., with holdings that are largely Canadian regulated utilities, was 9.2 percent including a 0.50 percent flotation adjustment. Notwithstanding the concerns raised by Drs. Kryzanowski and Roberts with respect to the application of the DCF method to individual companies, the Commission is prepared to take into account the returns expected for these companies in its assessment of a fair return for Alberta utilities. In addition, the Commission recognizes that, in Dr. Vilbert's DCF analyses of both U.S. and Canadian utilities employing a multi-stage growth estimate, the calculated ROE is in the range of 8.9 percent to 9.3 percent, including 0.50 percent flotation.

273. Overall the Commission finds 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.

5.4 Comparable Earnings

274. The comparable earnings test examines the accounting returns of a company as a percentage of its book value. The ATCO expert witnesses provided comparable earnings for a proxy group of companies that, in their view, were comparable to Alberta stand-alone utilities. Comparable earnings evidence provided by Mr. Coyne and Ms. McShane showed a range of comparable earnings from 11.2 percent to 13.6 percent.

275. Dr. Booth included, in his evidence, Statistics Canada's estimated average accounting earnings for Corporate Canada, for the period from 1998 to 2007. This data showed an average accounting return of 9.1 percent for the period.

[233] Exhibit 179.04, Schedule 3.8, Panel A.

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. McShane[239] 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.

279. Drs. Kryzanowski and Roberts did not provide a comparable earnings test because they state that "it is of dubious scientific merit …and thus unsuitable for use in determining a fair ROE for a utility." They argued that there is neither any theoretical underpinning nor any empirical support for the comparable earnings method for estimating a regulated fair rate of return for a utility. In their view, "as an accounting-based measure, comparable earnings will only coincide with the investor's opportunity cost (required rate of return) by accident. There is no conceptual reason to expect that comparable earnings represent a rational expectation of an investor's desired rate of return from investing in the firm."[241]

280. In Decision 2004-052, the Board rejected the comparable earnings test results as a measure of return on a comparable investment.

> The CE [comparable earnings] test measures **actual** earnings on **actual book value** of comparable companies, which in the Board's view does not measure the return "*it **would** receive if it **were** investing the same amount in other securities possessing an attractiveness, stability and certainty equal to that of the company's enterprise"* (emphasis added) (unless the securities were currently trading at book value).[242]

281. The Commission agrees with the Board that the comparable earnings test examines accounting earnings on book value for companies, but not returns actually available to, or required by investors in the market. In the Commission's view, because the comparable earnings test does not deal with returns available to investors in capital markets, it is not consistent with the comparable investment standard and is not a test upon which any weight should be placed. Consequently, the Commission will not consider the comparable earnings evidence.

5.5 Returns Awarded by Other Regulators

282. With respect to awarded returns for other Canadian utilities, a number of the utilities[243] argued that taking into consideration awards from regulators employing an adjustment mechanism similar to that used by the Commission would be circular. Accordingly, they recommended that the Commission place no weight on these awards. Mr. Coyne stated that:

> 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.[244]

283. CAPP took the position that awards by other regulators, in both Canada and the U.S., should not be considered:

> … reference to either sets of decisions – Canadian and U.S. – as benchmarks of what is a fair return is unnecessary since the better approach is to examine the evidence of required returns estimated by experts using techniques founded on sound principles of finance.[245]

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241 Exhibit 179.02, Evidence of Drs. Kryzanowski and Roberts, page 324.
242 Decision 2004-052, page 23.
243 AltaLink, EPCOR utilities, FortisAlberta and ATCO utilities.
244 Written Evidence of Mr. Coyne, Exhibit 50.01, Section 3.0, page 41.
245 Written Argument of CAPP, Exhibit 388.02, paragraph 403.

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.

> substantial premiums over their book values or rate base values except in periods of a seriously depressed stock market.[250]

291. Mr. Engen provided a table which summarized his estimate of recent price-to-book values for a number of Canadian utility holding companies, which ranged from 0.6 to 1.7.[251]

292. Dr. Vander Weide questioned the relevance of the price-to-book ratios and submitted that:

> According to the DCF model, a company's stock price is equal to the present value of the company's expected future dividends, which, in turn, depend on its expected future ROEs. Thus, market-to-book ratios greater than 1.0, at best, imply that investors expect the company to earn more than its cost of equity at some time in the future. There is nothing in the DCF model that allows the analyst to draw inferences about the relationship between a company's historical ROE and its cost of equity from evidence on market-to-book ratios."[252]

293. Mr. Edmondson, appearing for ATCO, stated that when a company is valuing investment opportunities, price-to-book ratios would be one of the last tools it would employ.[253] With respect to corporate disposition and acquisition values, ATCO submitted that "while corporate acquisition transactions provide an indication of price-to-book ratios that investors have been willing to pay for utility assets, that information does not tell us whether investors consider the current return on regulated assets fair".[254]

294. Mr. Coyne submitted that a price paid to acquire a utility above book value may reflect some premium based on the acquiring company's belief that the acquisition will result in improved cost efficiency, or that the acquisition will provide them with an opportunity to serve an expanding territory or customer base, or that the acquisition provides a good strategic fit with other businesses in their corporate portfolio.[255] Both Mr. Coyne and Dr. Vander Weide indicated that in periods of inflation historical costs would be less than the current market cost and could account for price-to-book differences.[256]

295. The Commission considers that a price-to-book ratio of approximately 1.2 for a stand-alone utility would generally indicate that the return is at least fair. However, the Commission is unable to derive any useful information about the price-to-book ratios of stand-alone utilities from the price-to-book ratios for utility holding companies.

296. AltaGas indicated that AltaGas Utilities Group Inc. trades significantly below its book value,[257] which discourages new investment as any dollar invested is worth less than a dollar to market investors[258] and is dilutive to existing shareholders.[259] However, the Commission notes

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250 Exhibit 52.02, Evidence of Aaron M. Engen, page 111 of 120.
251 Exhibit 279.01, Rebuttal Evidence of Aaron Engen, pages 21-22.
252 Exhibit 282.01, Vander Weide Rebuttal Evidence, page 10.
253 Transcript, pages 1328-1329.
254 Exhibit 128.02, AUC-ATCO UTL-6(b).
255 Exhibit 128.02, AUC-ATCO UTL-15(d).
256 Exhibit 128.02, AUC-ATCO UTL-15(b)b; Exhibit 282.01, Vander Weide Rebuttal Evidence, Exhibit 282.01, page 75.
257 Exhibit 58.02, Tab 2, Vilbert Evidence, pages 16-17 and 22.
258 Ibid.

that AltaGas Utilities Group Inc.'s financial statements dated December 31, 2007[260] 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 1.27[261] to 3.99[262] 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]

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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.

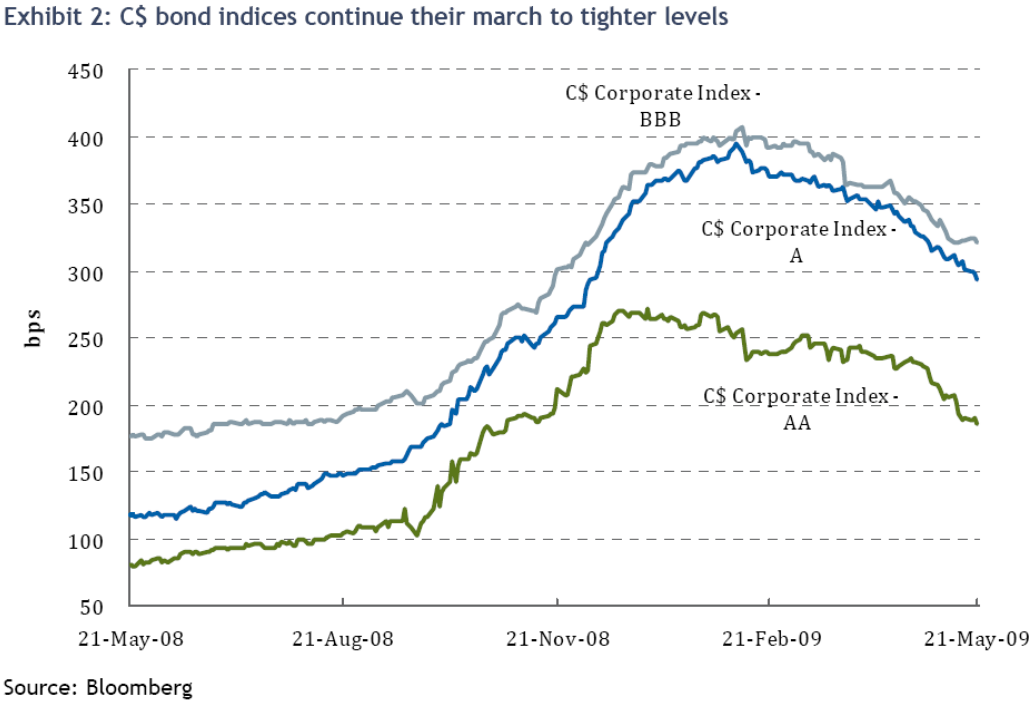
262 Exhibit 117.03, UCA-EPC, page 120, lines 10-11.

263 Coyne Rebuttal Evidence, Exhibit 279.01, page 3.

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

300. Figure 1 below was provided in an undertaking response by Dr. Roberts. It demonstrated that the high grade corporate bond credit spreads have recovered significantly since the peak of the financial crisis:[265]

Figure 1 Canadian Bond Spreads

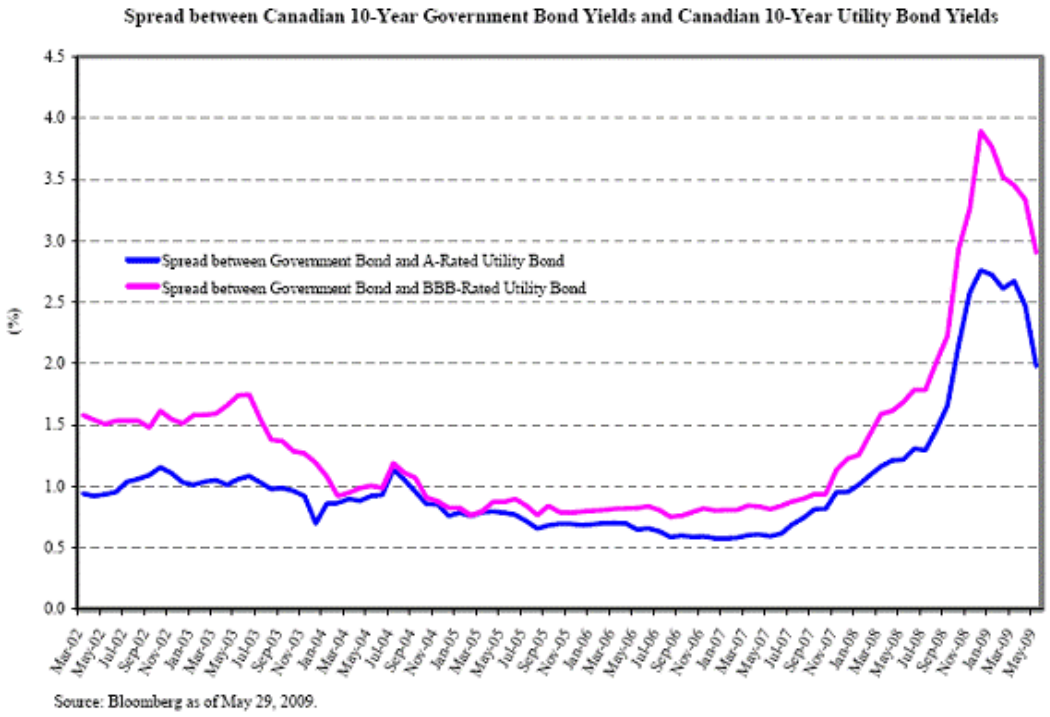


301. Canadian utility bonds are a subset of Canadian high grade corporate bonds. As demonstrated in Figure 2 below the experience of Canadian utility bonds has been similar to Canadian corporate bonds in general with spreads to long Canada bonds widening in the spring of 2008 and starting to decline in the later half of 2008. Figure 2 below was provided by Dr. Vilbert in an undertaking response by Dr. Vilbert to counsel for the UCA:[266]

[265] Undertaking given at Transcript, page 3018, line 1 to provide most recent RBC Capital Markets Credit Weekly Report. Chart appears in Exhibit 368.04, the RBC Credit Weekly Report Volume 20 (May 22, 2009) at page 3.

[266] Undertaking given at Transcript Volume 14, page 13, Chart appears in Exhibit 359.01.

Figure 2 Canadian Utility Bond Spreads



Source: Bloomberg as of May 29, 2009.

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.

> Q. So, sir, if I understand your position correctly, the utility equity issuer must be competing for the expected return on utility bonds, and that's what they are competing against, not the yield on bonds?
> A. DR. BOOTH: That's absolutely correct.[268]

304. Dr. Booth asserted however that it was not possible to draw direct linkages between increased credit spreads in the Canadian bond market and increase return expectations by equity investors. In his opening statement at the oral hearing Dr. Booth stated:

> However, as I say in my testimony, it is a fundamental error to assume that you can simply compare promised yields on default risky bonds with expected returns on stocks as if they are the same; they are not. Default spreads on A bonds are driven by different factors to those that drive equity risk premia.[269]

305. Dr. Booth stated in his evidence that trading liquidity less than that of Government of Canada bonds cause Canadian corporate bond spreads to suffer from a liquidity premium. Corporate bond spreads are wider partially because there is less trading liquidity in corporate bonds which is exacerbated by the many various tranches of corporate debt resulting in further liquidity premiums.[270] He further stated:

> It is quite obvious that unlike the fixed income market where there have been and always are serious liquidity problems during a recession and consequent flight to quality, no such liquidity problems are apparent in the equity market. Rewarding equity holders with a higher ROE as a result of liquidity problems in the bond market does not have any economic justification.[271]

306. Mr. Engen disagreed with Dr. Booth's contention that higher bond spreads in Canada were a result of a liquidity problem brought on by the financial crisis and that it was improper to make assumptions about increased equity investor expectations from increased expectations of bond holders. In his Rebuttal Evidence Mr. Engen stated:

> …arguments suggesting that trading illiquidity is the driver behind the higher yield spreads for the Canadian generic A-rated corporate and utility spreads point to a fundamental misunderstanding of the bond market and how bonds are priced.[272]

307. Mr. Engen explained that corporate bonds do not need to be as frequently traded as Government of Canada bonds to avoid a liquidity premium. As an investment banker, Mr. Engen stressed that the Commission should have regard to actual capital market expectations by stating:

> …BMO Capital Markets is of the view that the proportion of corporate trading volumes relative to outstanding corporate bonds (or bid/offer indications) are sufficiently high that liquidity premiums are not required by the market for the corporate and utility bonds used to develop its Canadian generic A-rated corporate and utility bond spreads.[273]

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[268] Transcript, page 3357 lines 3-7.
[269] Transcript, page 3148 lines 8-14.
[270] Revised Evidence of Dr. Booth, Exhibit 292.03, pages 88-95.
[271] Revised Evidence of Dr. Booth, Exhibit 292.03, page 95.
[272] Engen Rebuttal Evidence, Exhibit 279.01, page 19.
[273] Engen Rebuttal Evidence, Exhibit 279.01, page 20.

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 points[274]. 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.

5.8 Pension, Investment Manager and Economist Return Expectations

312. In Decision 2004-052, the Board considered evidence on the expectations of pension and investment managers. There was relatively little evidence of, or discussion on, the expectations of pension and investment managers in this proceeding.

313. The UCA argued that the Commission should accept survey results from pension and investment managers and other knowledgeable sources as valid benchmarks against which ROE or MERP recommendations can be assessed.[277] Specifically, the UCA referred to the evidence of Drs. Kryzanowski and Roberts, who used the return expectations from surveys of professional economists and portfolio managers provided by Watson Wyatt. The UCA stated that the most recent forecasts collected by Watson Wyatt reported median total return expectations of 7.5 percent for the S&P/TSX Composite Index for both the mid-term (2010-2013) and long-term (2014-2023).[278] They concluded that the ROE recommendation of 7.9 percent for 2009 from Drs. Kryzanowski and Roberts is conservatively high.[279]

314. Mr. Engen indicated that, from his discussions with the major Canadian pension funds, he understood that pension funds expect energy infrastructure investment returns on capital in the order of a minimum of 7.5 percent to 8.5 percent with returns on equity in the range of 10.0 percent to 12.0 percent.[280] ATCO argued that this evidence demonstrates that potential investors in infrastructure are looking for returns that are significantly higher than recommended by Drs. Kryzanowski and Roberts. However, the Commission finds that the evidence of Mr. Engen, on pension fund expectations, is anecdotal and cannot be relied upon.

315. With respect to the Watson Wyatt evidence relied upon by Drs. Kryzanowski and Roberts, the Commission takes this as one indication that professional economists and portfolio managers expect that returns for the market as a whole may decline, over the medium to long run, once the effects of the financial crisis have dissipated. At issue for the Commission, however, is the speed at which the effects of the financial crisis will indeed abate.

5.9 Negotiated Settlements

316. There was no suggestion by any party to the proceeding that the Commission should take any guidance from the results of recently negotiated general rate application settlements when establishing a fair return for the utilities. The UCA recommended that the Commission not place any weight on negotiated settlement evidence presented in this proceeding, and that all negotiated settlements cannot be used to set any precedents because they are made up of a series of compromises.[281]

317. CAPP argued that the Commission should not have regard to negotiated settlements because:

> … settlements involve tradeoffs. Using negotiated agreements as precedents would take agreements negotiated as package deals and that are only acceptable to the parties as a complete package and cherry pick one item, the return opportunity, as the precedent. It would completely chill the freedom to negotiate within established regulatory

277 UCA Argument, Exhibit 387.01, page 38.
278 Ibid.
279 UCA Argument, Exhibit 387.01, page 38.
280 Exhibit 52.02, Engen Evidence, page 85.
281 UCA Argument, Exhibit 387.01, page 90.

> 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

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[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.

grow for many years at a growth rate that is significantly different from that of the Canadian economy.[286]

322. The Commission rejects Dr. Vander Weide's concerns that Dr. Booth's application of the DCF method to the Canadian stock market as a whole is fundamentally flawed. The Commission finds Dr. Booth's forecast to be reasonable, and will take it into consideration in its determination of the utilities' required ROE because all that is required to calculate returns using the DCF model is an initial dividend yield and justifiable short- and long-term forecast dividend growth rate.

5.11 The Commission's Awarded ROE

323. The Commission is required to establish a fair rate of return on equity for 2009 and going forward for the utility companies it regulates. In keeping with the Commission's determinations above, the Commission will establish a generic ROE to be applied to each of the utility businesses it regulates as if they were stand-alone utilities. The Commission has reviewed the models and approaches adopted by the various parties and, based on the analysis above, has found that some of the CAPM and DCF results filed in this proceeding (including an analysis of the expected overall Canadian stock market returns) will form the primary basis for its ROE determinations. All of the Commission's analysis has been conducted in the context of, and having regard to, the uncertainties created by the current financial crisis that began in the third quarter of 2007.

324. The generic ROE established by the Board in 2004 and the annual adjustment formula adopted at that time were developed based on the assumption that certain key relationships in the financial markets would continue. In particular, the Board relied on CAPM as the primary basis for the 2004 awarded ROE and annual adjustment formula. As explained in Section 7 of this Decision the Commission accepts that, during the current financial crisis, the traditional relationship between the risk free rate (measured as the yield on long Canada bonds) and the required market return on equities has not continued. Therefore, the Commission has found it necessary to make certain adjustments to its CAPM analysis and also considered some of the DCF analysis, as well as other factors in arriving at a fair ROE.

325. Based on the Commission's findings with respect to CAPM, the Commission found a reasonable range of CAPM results of 7.13 percent to 8.62 percent. However, given the Commission's observations with respect to the impacts of the financial crisis on the traditional relationships in the financial market, the Commission considers that these CAPM may be unreasonably low.

326. The Commission's analysis of the performance of high grade bonds relative to the risk free rate during the financial crisis, as explained in Section 5.7, reveals that the traditional spread between the long Canada bond yield and the yield on high grade bonds had increased to well above the traditional spread of one percent and by the close of the record in the proceeding had moved back to a spread of approximately 1.5 percent. As a result, the Commission concludes that the CAPM results likely underestimate the required market equity return by at least 50 basis points. Accordingly, the Commission has adjusted its CAPM results to arrive at a range of 7.63 percent to 9.12 percent.

[286] Exhibit 282.01, Dr. Vander Weide Rebuttal Evidence, pages 55-56.

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.

crisis dropped to very low levels.[292] It follows that stand-alone utilities would have less risk than the utility holding companies and therefore must have even lower betas.

330. The Commission is mindful that evidence on professional economists' and portfolio managers' expectations suggests that returns for the market as a whole may decline over the medium to long run once the effects of the financial crisis have dissipated. The Commission also recognizes that there remains a considerable amount of uncertainty in the financial markets and the Commission is concerned that awarding a generic ROE that does not take these uncertainties into account would be unreasonable.

331. Having considered and weighed all of the evidence and assessed it in the context of the current financial crisis, it is the Commission's judgment that the generic ROE for 2009 should be set at 9.0 percent.

6 CAPITAL STRUCTURE

6.1 Introduction

332. To satisfy the fair return standard, the Commission is required to determine a capital structure (equity ratio) for each of the utilities that are the subject of this Proceeding. In this Decision, the Commission has established a generic ROE of 9.0 percent which will be applied uniformly to all of the utilities. As the Board did previously, the Commission will account for the differences in risk among the individual utilities by adjusting their capital structures.

333. In general, the return required by investors on debt is lower than the return required on equity. This is because debt holders have priority over equity holders in the distribution of earnings from operations and, in the event of bankruptcy, in the disposition of the assets of the firm. As the proportion of debt in the capital increases, a greater portion of the earnings from operations of the firm are required to cover the increased interest costs on debt. As the proportion of debt rises, both debt and equity investors will perceive an increase in risk. Debt holders will be concerned that the debt obligations of the firm may not be met, and equity investors will be concerned that there will be insufficient earnings from operations to both cover the debt obligations of the firm and pay them their expected return. This risk is usually assessed by various interest coverage calculations that measure the ability of the firm to pay its debt obligations. Bond rating agencies, such as Dominion Bond Rating Services (DBRS) assess the risk of individual firms on the basis of various interest coverage metrics and an overall assessment of the risk that the firm will not be able to both cover its debt obligations and pay a return to its shareholders.

334. In this Decision, the Commission will establish, for each utility, the capital structure that, in the Commission's judgment, would allow a stand-alone utility to maintain a credit rating in the A range subject to company-specific circumstances. To do so, the Commission will first consider the record of the Proceeding on the overall risk of regulated utilities posed by the current credit environment and current utility credit metrics. The Commission will then assess, on the basis of the record of the Proceeding, the risk of each of the utility sectors and determine a relative ranking of risk for each sector and the commensurate equity ratio that, in the Commission's judgment, will allow the utilities in each sector to maintain the desired credit

[292] Dr. Booth Revised Evidence, Exhibit 292.03, page 73.

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.

338. Interveners argued that "since the dark days when interveners filed their evidence, there have been significant improvements in capital markets."[303] They pointed to a number of improving financial and economic indicators that supported their claims. Hence, the Commission, the interveners urged, "should not be concerned with the allegations that any problems raising capital are not short term."[304]

339. The utilities argued that what the world experienced in terms of economic and financial meltdown was something of an unprecedented nature that fundamentally altered the perception of risk and that it will have long-term consequences. ATCO, for example, argued that "[e]quity risk has been re-priced pure and simple."[305] Furthermore, citing Mr. Coyne's rebuttal evidence, ATCO argued that "the faith of investors has been severely shaken by the sudden downturn in equity valuations and dislocations in the financial system, and such shifts in investor sentiment may take years or decades to return to 'normal'."[306]

340. AltaGas also argued that even though "the worst of the crisis is perhaps behind us," risk-averse investors have not restored their confidence in the market to where they were before the crisis.[307] Similarly, AltaLink's Mr. Bronneberg testified at the hearing that the capital markets "are still under tremendous pressure and remain volatile and unpredictable."[308] In a cautionary fashion, he warned that given the nature of the financial crisis, "another unexpected event could trigger a material reversal in this recovery."[309]

341. In light of this and other exchanges during the hearing, the Commission accepts that the financial markets have not returned to typical pre-2007 behavior, and the long term effects of the crisis, ranging from the continued elevated corporate bond spreads, short-term interest rates close to zero, the rapidly increasing size of government deficits, and the continuing job losses in the U.S., are still present.[310]

342. The Commission must also consider that the events that drove the original crisis will be factored into investors' perceptions. Companies will therefore protect their balance sheets and investors will adjust risk perceptions whether unexpected events present themselves again or not. In order to protect investors' and ratepayers' interests, the Commission must award equity ratios that recognize the need for the ongoing viability of the utility even in adverse conditions. Therefore, the Commission will increase allowed equity ratios.

6.3 Credit Metrics and Actual Credit Ratings

343. Credit-ratings measure the credit-worthiness of a firm. A higher credit rating signals higher confidence in the firm's ability to meet its interest payments. This, in turn, allows the company to borrow at a lower interest rate. Utilities usually seek to maintain a credit rating in the A range.

303 CAPP Argument, Exhibit 388.02, paragraph 274.
304 UCA Argument, Exhibit 387.01, page 83, paragraph 379.
305 ATCO Argument, Exhibit 390.02, page 48, line 14.
306 ATCO Argument, Exhibit 390.02, page 48, lines 20-23.
307 AltaGas Reply Argument at page 8.
308 Transcript at page 201, lines 2-4.
309 Transcript at page 201, lines 5-6.
310 See paragraph 46 above.

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.

Table 12. Credit Rating Metrics

Segment or Utility	Actual Debt Rating(s)	Provider	EBIT Interest Coverage	FFO / Debt (%)	FFO Coverage
AltaLink[313]	A- Stable	S&P	1.7	11.1	3.0
AltaLink[314]	A Negative Trend	DBRS	2.07		
AltaLink Investments L.P.[315] (Parent of AltaLink)	BBB Negative Outlook	DBRS	1.53	10.5[316]	
Fortis Inc.[317]	A-	S&P	2.2	11.5	2.9
FortisAlberta[318]	A (low)	DBRS	2.03		
FortisAlberta[319]	A-	S&P	2.3	14.3	4.2
CU Inc.[320]	A	S&P	2.7	18.7	3.6
CU Inc.[321]	A (high)	DBRS	2.38		

348. The Commission observes from the above table that EBIT coverage ratios of approximately 2.0 to 2.3 appear to be sufficient to obtain credit ratings in the lower A range.

349. EPC submitted that based on S&P guidelines, an interest coverage ratio of 2.3 to 2.8 is required to maintain an A credit rating for "S&P business risk positions 2 to 3" which would be applicable to the distribution business of EPC, and an interest coverage ratio of 1.8 to 2.3 times is required for the lower risk "S&P business risk position of 1 to 2" which would be applicable to the transmission business of EPC. The "business risk positions" to which EPC referred, are business risk rankings formerly employed by S&P. S&P no longer publishes business risk positions. Nevertheless, the Commission observes that if S&P were still using the guidelines cited by EPC, it appears that all of the utilities listed in Table 7 (all of which have investment grade ratings) would be considered in a lower risk category given that their EBIT coverage ratios range from 1.7 to 2.7. In the case of AltaLink Investments L.P., DBRS has assigned a credit rating of BBB with a negative outlook where the EBIT coverage ratio is 1.53 times and the "cash flow to debt" (a term used by DBRS that appears to be equivalent to FFO/Debt) is 10.5 percent. This gives the Commission some indication that the lower end of the EBIT coverage range necessary to maintain a credit rating in the A range is approximately 1.8.

350. Below, the Commission reviews its analysis of the sensitivity of three key credit rating metrics to changes in the equity ratio. The Commission notes that the credit rating metrics are not very sensitive to changes in the ROE. Credit metrics are more sensitive to the amount of debt and equity in the capital structure than they are to the return on equity.

6.3.1 EBIT Interest Coverage Ratio

351. The Commission has calculated and set out in Table 13 below, interest coverage ratios that would result from different equity ratios assuming an embedded cost of debt of 6.5 percent,

313 Exhibit 57.06, pages 25 to 35 of 83, S&P credit report dated May 9, 2008.
314 Exhibit 57.06, AltaLink Minimum Filing Requirements, DBRS credit report of May 28, 2008.
315 Exhibit 57.06, AltaLink Minimum Filing Requirements, DBRS credit report dated May 28, 2008.
316 DBRS described this number as measuring cash flow/debt, which appears to be the same as FFO/Debt.
317 Exhibit 53.05, S&P credit report October 25, 2007 and Fortis Inc. Balance Sheet, page 107 of 283.
318 Exhibit 53.05 FortisAlberta Minimum Filing Requirements, section 4, DBRS credit report, May 30, 2008.
319 Exhibit 53.05 FortisAlberta Minimum Filing Requirements, section 4, S&P credit report, March 26, 2008.
320 Exhibit 50.02, CU Inc. S&P report dated October 26, 2007.
321 Exhibit 50.02, CU Inc. DBRS report dated May 13, 2008.

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 2004-052[324] 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.

6.3.2 Funds From Operation/Debt Ratio

353. The Commission has also calculated, and set out in Table 14 below, the ratio of the Funds From Operations (FFO) (net income plus depreciation) divided by debt that would result[325] at different equity ratios assuming an ROE of 8.75 (the 2009 placeholder level) and assuming a range of depreciation rates (as a percentage of invested capital) from 4 percent to 9 percent based on actual depreciations rate results calculated from the 2007 reports on finances and operations. These range from 4.8 percent to 8.5 percent and average 6.0 percent.

Table 14. Funds From Operations to Debt Compared to Equity Ratios

Depreciation Rate	4.00%	5.00%	6.00%	7.00%	8.00%	9.00%
Equity Ratio (%)						
30	9.5	10.9	12.3	13.8	15.2	16.6
31	9.7	11.2	12.6	14.1	15.5	17.0
32	10.0	11.5	12.9	14.4	15.9	17.4
33	10.3	11.8	13.3	14.8	16.3	17.7
34	10.6	12.1	13.6	15.1	16.6	18.1
35	10.9	12.4	13.9	15.5	17.0	18.6
36	11.2	12.7	14.3	15.9	17.4	19.0
37	11.5	13.1	14.7	16.3	17.8	19.4
38	11.8	13.4	15.0	16.7	18.3	19.9
39	12.2	13.8	15.4	17.1	18.7	20.3
40	12.5	14.2	15.8	17.5	19.2	20.8
41	12.9	14.6	16.3	17.9	19.6	21.3
42	13.2	15.0	16.7	18.4	20.1	21.9
43	13.6	15.4	17.1	18.9	20.6	22.4
44	14.0	15.8	17.6	19.4	21.2	22.9
45	14.4	16.3	18.1	19.9	21.7	23.5

354. Table 14 shows that when the annual depreciation expense as a percentage of invested capital is equal to the utility average of 6 percent, minimum equity ratios in the range of 30 to 36 percent will achieve FFO/Debt percentages of 11.1 to 14.3, which Table 12 shows is associated with credit ratings in the lower A range.[326]

6.3.3 Funds From Operations Coverage Ratio

355. The Commission has calculated, and set out in Table 15, the coverage ratio of the Funds From Operations (net income plus deprecation) divided by interest expense that would result at different equity ratios and depreciation rates assuming an ROE of 8.75 percent (the 2009 placeholder level) and an embedded interest cost of 6.5 percent.

[325] The Commission recognizes that this is theoretical since it omits consideration of CWIP (which lowers the FFO/ debt ratio when present) and does not consider that some utilities actually collect more taxes than paid in cash which increases the FFO/Debt ratio.

[326] This omits consideration of CWIP or cash flows created by positive or negative differences between tax collected and tax paid.

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.

Table 16. Summary of Canadian Utility Credit Ratings and Equity Ratios

Segment or Utility	Actual Debt Rating(s)	Provider	Equity %	Nature of Rating.	Nature of Business
AltaLink[327]	A- Stable	S&P	36.3	Stand-alone	fully regulated
AltaLink[328]	A Negative Trend	DBRS	38.4	Stand-alone	fully regulated
AltaLink Investments L.P.[329] (Parent of AltaLink)	BBB Negative Outlook	DBRS	27.2	Stand-alone	fully regulated
Fortis Inc.[330]	A-	S&P	32.9	Stand-alone	Largely regulated
FortisAlberta[331]	A (low)	DBRS	39.5	Stand-alone	fully regulated
FortisAlberta[332]	A-	S&P	36.4	Stand-alone	fully regulated
CU Inc.[333]	A	S&P	41.0	Rating factors in parent support	fully regulated
CU Inc.[334]	A (high)	DBRS	39.1	Stand-alone	fully regulated
Newfoundland Power[335]	A	DBRS	44.1	unknown	fully regulated

359. Table 16 shows that the actual equity ratios of the companies with a credit rating of A- or better range from 32.9 percent to 44.1 percent with a mid point of 38.5 percent.

360. Other information about equity ratios and related credit ratings was provided on the record by Dr. Neri, on behalf of EPC. He submitted that based on his "Canadian Wires-only Peer Group," the median credit rating was "A" and the actual equity ratios ranged from 38.1 percent to 59.6 percent with the median for the group being 44.1 percent[336] (and the midpoint being 48.8 percent). The Commission notes however that Dr. Neri's seven utilities included four government-owned utilities (Hydro One, Hydro Ottawa Holdings, Toronto Hydro and Viridian Corporation). The Commission agrees with those parties (including utilities) that expressed doubts about the usefulness of data that includes the equity ratios and the credit ratings of government-owned utilities for the purposes of a proceeding dealing with investor-owned utilities.[337] Therefore, the Commission does not consider Dr. Neri's equity ratio range to be representative of stand-alone investor-owner utilities.

361. As set out in Table 11, the utilities have applied for equity ratios ranging from 38 percent (AltaLink and ATCO Electric Transmission) to 46 percent (AltaGas) and argued that these equity ratios are needed to ensure credit ratings in the A range.

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327 Exhibit 57.06, pages 25 to 35 of 83, S&P credit report dated May 9, 2008, indicates a debt /(debt and equity) ratio of 63.7 percent and states that "[h]owever, the company does carry C$200 million in goodwill on its balance sheet; a more conservative measure of leverage relative to rate base is about 70%."

328 Exhibit 57.06, AltaLink Minimum Filing Requirements, DBRS credit report of May 28, 2008.

329 Exhibit 57.06, AltaLink Minimum Filing Requirements, DBRS credit report dated May 29, 2008, AILP's consolidated debt to capital is indicated as 72.8 percent (and the Commission notes that this is with no adjustment for goodwill).

330 Exhibit 53.05, S&P credit report October 25, 2007 and Fortis Inc. Balance Sheet, page 107 of 283.

331 Exhibit 53.05, FortisAlberta Minimum Filing Requirements, section 4, DBRS credit report, May 30, 2008.

332 Exhibit 53.05, FortisAlberta Minimum Filing Requirements, section 4, S&P credit report, March 26, 2008.

333 Exhibit 50.02, CU Inc. S&P report dated October 26, 2007.

334 Exhibit 50.02, CU Inc. DBRS report dated May 13, 2008.

335 Exhibit 55.01, Evidence of Dr. Neri, Schedule 1.

336 Exhibit 55.01, Evidence of Dr. Neri, page 26 of 26.

337 Dr. Neri also included a DBRS credit rating for Newfoundland Power and referenced its credit reports and financial statements.

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 rating[338] 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.

appearing for AltaLink, stated that transmission and distribution companies are regarded as having similar business risk."[342]

367. Mr. Johnson, witness for Calgary, submitted that the least risky entities are the electric transmission companies AltaLink and ATCO Electric Transmission. Mr. Johnson rated gas and electric distribution as slightly more risky than electric transmission and the municipal owned companies more risky than gas and electric distribution companies. Mr. Johnson also stated that ATCO Pipelines (the only gas transmission entity regulated by the Commission) has significantly less risk now than in 2004 due to its proposed integration with NGTL, and if the agreement is implemented, Mr. Johnson states that ATCO Pipelines' risk will be similar to that of NGTL[343] (which is no longer regulated by the Commission but which was considered by the Board to have less risk than ATCO Pipelines in 2004).

368. The UCA stated that the business risk of gas transmission is low-moderate although somewhat elevated since 2004 due to an increase in supply risk. The UCA also submits that the business risk of gas distribution is low to moderate and similar to 2004 with the exception of lower operating leverage risk resulting from the introduction of a weather deferral account for ATCO Gas.[344]

369. Ms. McShane compared the utilities to industry sector-specific benchmarks for ranking purposes.[345] She rates AE Transmission, AE Distribution, and ATCO Gas as all having similar business risk to the industry benchmark. Ms. McShane rates ATCO Pipelines as having higher business risk relative to its sector-specific benchmark.[346]

370. The Commission observes that there is a general consensus on the rank ordering of risk by sector. The electric transmission sector is considered to have the least risk. No party argued otherwise and the Commission agrees.

371. The Commission also finds in general that the electricity distribution segment is slightly more risky than electricity transmission. The Commission agrees with ATCO that ATCO Gas has a similar level of business risk compared to electric distribution companies. The Commission is persuaded that due to its small size, AltaGas is more risky than ATCO Gas. The Commission agrees with ATCO that ATCO Pipelines (transmission) is more risky than ATCO Gas (distribution).

6.7 Company-Specific Considerations

372. The Commission now turns to a consideration of adjustments to the equity ratios of individual companies based on their specific business risks.

6.7.1 Adjustment for Non-taxable Status

373. In Decision 2004-052 the EUB approved a 2 percent increment in the common equity ratio for non-taxable utilities. The Board said, at page 45 of Decision 2004-052:

342 Exhibit 170.01,UCA-AML-19(c).
343 Exhibit 180.02 and 180.03, Evidence of Mr. Johnson, pages 2-3.
344 UCA Argument, Exhibit 387.01, pages 62-64.
345 Exhibit 50.01, McShane Evidence, Section 4.0, page 15.
346 Exhibit 50.01, McShane Evidence, Section 4.0, page 3, table 1.

> 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

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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.

non-taxable utilities is likely not needed and its witness, Mr. Johnson, went on to question whether the 2 percent adjustment should be changed in light of lower corporate tax rates.[352]

379. Dr. Vander Weide, stated in his evidence that he agreed with an additional 2 percent deemed common equity that the Alberta regulators have been recognizing. Dr. Vander Weide states:

> I agree with the EUB's decision that non-taxable utilities should have higher deemed equity ratios because, other things equal, they have greater variability in net income and return on equity and lower interest coverage ratios than fully taxable utilities.[353]

380. Dr. Vander Weide further states:

> Other things equal, a utility whose revenue requirement does not include an income tax allowance (i.e., a Non-Taxable Utility) has a lower interest coverage ratio, higher variability in operating income, and higher variability in return on equity.[354]

381. Fortis submitted that, due to combined effects of its flow-through tax approach adopted for rate making and its large capital programs, it anticipates being a non-taxable entity until at least 2013.[355] Fortis submits that the rationale applied from Decision 2004-052 for a utility to be considered for non-taxable applies to Fortis and that logic, consistency, and fairness indicate that the 2 percent addition to equity thickness should apply to Fortis in its current situation.[356]

382. The CCA disagrees with granting the two percent increment to Fortis. The CCA submits that Dr. Vander Weide was not asked to provide an opinion on this and considers that Fortis has not provided expert evidence to justify its position on non-taxable status.[357] The CCA stated in Argument that it is alarmed over the use of non taxable status as an argument for increased risk of the utility and a higher equity ratio requirement.

383. The Commission agrees that entities with tax exempt status have a higher volatility of earnings than otherwise equivalent taxable companies because of the absence of an income tax component in their forecast revenue requirements. There was no disagreement among participants in the proceeding that while income tax exempt status lowers a company's costs, it increases the volatility of earnings and decreases interest coverage ratios. Therefore, the Commission will continue to add two percentage points to the equity ratios of income tax exempt utilities.

384. The Commission agrees with Fortis that since it is currently non-taxable and expects to be so at least for the near-term future, it too qualifies for the addition of two percentage points to its equity ratio. This status would change if Fortis became an income tax paying entity or if the Commission were to change from the flow through method of accounting for income taxes for revenue requirement purposes to the normalized tax or another similar method in the future.

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352 Transcript. page 3658, lines 3-8.
353 Exhibit 56.04, Supplemental Evidence Dr. Vander Weide, pages 2-3.
354 Exhibit 282.01, Reply Evidence Dr. Vander Weide, pages 46-51.
355 Exhibit 53.03, Fortis Evidence, pages 1-2.
356 Fortis Argument, Exhibit 382.03, pages 2-11.
357 CCA Argument, Exhibit 391.01, page 29.

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.

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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.

6.7.4 ATCO Pipelines' System Integration with NGTL

390. In August 2008, ATCO Pipelines entered into a memorandum of agreement for the integration of its system with that of NGTL.[363] During the course of the proceeding, Mr. Jansen stated that definitive agreements had been signed subject to customer and regulatory approval. A number of parties discussed how the agreement might affect the business risks of ATCO Pipelines. Calgary submitted that the agreement reduces ATCO Pipelines' risk significantly because it significantly reduces competition between ATCO Pipelines and NGTL.[364] In light of the agreement, both Dr. Booth and Drs. Kryzanowski and Roberts have made two separate capital structure recommendations for ATCO Pipelines, one with integration (33 and 34 percent respectively) and one without integration (37 and 42 percent respectively).[365]

391. ATCO responded in Reply Argument that it is difficult to ascertain with any degree of confidence what the risk profile of ATCO Pipelines would be post-integration. ATCO went on to say that it is unreasonable to leap to conclusions about the business risk of ATCO Pipelines after integration and that the only thing which is certain is that there will be change.[366]

392. The Commission agrees with ATCO that until the agreement has been finalized and has received regulatory approvals, it is difficult to determine what changes to ATCO Pipelines' risks might occur. Therefore, the Commission will not make adjustments for changes in risk that might result from the agreement. The Commission will re-evaluate business risk following implementation of the agreement.

6.7.5 ATCO Gas 2009 Capital Structure

393. In Decision 2008-113,[367] the Commission approved a weather deferral account for ATCO Gas effective January 1, 2008. In her evidence, Ms. McShane for ATCO concluded that business risk for ATCO Gas had not changed since 2004 because any reduction in risk from a weather deferral account has been offset by other risks. She stated:

> Any reduction in risk due to the proposed weather deferral account is offset by increasing cost recovery risks associated with declining customer usage and a high growth economy.[368]

394. During the proceeding, UCA stated that the weather deferral account approved for ATCO Gas has reduced its level of risk since the last Generic Cost of Capital Proceeding.[369] Drs. Kryzanowski and Roberts rate ATCO Gas's operational risk as low-moderate and also note that it has been reduced by the approval of a weather deferral account.[370]

395. Bond rating agencies also view weather deferral accounts as risk-reducing tools. Drs. Kryzanowski and Roberts referred to a DBRS report as follows:

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363 Exhibit 50.01, Section 4.0, Evidence of Ms. McShane, page 45.
364 Calgary Argument, Exhibit 386.02, page 21.
365 Evidence of Drs. Kryzanowski and Roberts, Exhibit 179.02, page 6; CAPP Argument, Exhbit 388.02, page 94.
366 ATCO Reply Argument, pages 41-42.
367 Decision 2008-113 - ATCO Gas 2008-2009 General Rate Application Phase I (Application No. 1553052, Proceeding ID. 11) (Released: November 13, 2008).
368 Exhibit 50.02, Appendix F, Capital Structure for ATCO Gas, Kathleen C. McShane, page 3.
369 Exhibit 178.02, Evidence of B. Marcus, page 20.
370 UCA Argument, Exhibit 387.01, page 62.

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

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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.

construction builds.[376] During the Proceeding parties observed that the provincial government had enacted section 42 of the *Transmission Regulation* to deal with the challenges that might be faced by TFOs building large transmission projects to support Alberta's competitive electricity generation market. Section 42 states:

> In addition to the matters taken into account by the Commission under section 122 of the [Electric Utilities] Act, when considering an application for approval of a TFO tariff, the Commission must consider that it is also in the public interest to provide consumers the benefit of unconstrained transmission access to the competitive generation market
>
> (a) by providing sufficient investment to ensure the timely upgrade, enhancement or expansion of transmission facilities, and
>
> (b) by fostering a stable investment climate and a continued stream of capital investment for the transmission system.

401. During the Proceeding, the Commission heard varying perspectives of the interpretation of section 42 of the *Transmission Regulation* and the relationship between section 42 and section 122 of the *Electric Utilities Act*.

402. AltaLink argued that section 42 of the *Transmission Regulation* is to be considered as providing financial assurances in addition to section 122. In its Argument AltaLink stated:

> Section 42 is **in addition to the matters** to be taken into account by the Commission under section 122. Therefore, on its face, section 42 of the Transmission Regulation is not simply duplicative of section 122 of the *Electric Utilities Act*.[377]

403. Mr. Weismiller, company witness for ENMAX, stated at the hearing that his understanding of section 42 was that it did not add much in relation to section 122.[378] EPCOR and ATCO both stated at the hearing that as long as the applicant utility was consistently awarded a fair return then it would be able to go out and raise capital at anytime and if a fair return was awarded then no additional consideration would be required by the Commission in terms of return, increase in ROE or increase in capital structure.[379] In response to a question from Commission Counsel at the hearing, Mr. Stout of EPCOR stated:

> …and now I will get back to Section 42, which I see there is really as a reminder to the regulator and a reminder to the companies that the regulatory compact still exists, that we've gone through a cycle in transmission building of little investment, even of neglect, if you like, to one where we need to do a lot of catch-up investment and strengthen that transmission system, and it now becomes critically important that the TFOs are able to finance and gather the capital necessary to build that. But I don't see it as anything more than that. I don't see it as suggesting there should be some extra juice or extra favour in terms of return on equity or anything else. I think it simply is an underscoring of, hey, there's a regulatory compact here in times of slowdown and in times of rapid growth."[380]

[376] ATCO Argument, Exhibit 390.02, page 94.
[377] AltaLink Argument, Exhibit 389.03, page 26, paragraph 59.
[378] Transcript, page 2603, line 25 to page 2604, line 2.
[379] Transcript, page 471, line 22 to page 472, line 19 and page 1790, lines 11-25.
[380] Transcript, page 471, line 22 to page 472, line 11.

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]

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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.

409. The Commission concludes, as stated above, that it does not interpret section 42 of the *Transmission Regulation* to require it to provide TFOs with additional returns and the Commission will defer any decision to consider regulatory mechanisms that could assist the TFOs in financing their transmission builds to such time when an application is made by a TFO.

6.8 Conclusion Regarding Required Capital Structures

410. The Commission has examined a number of factors that are relevant to determining required equity ratios. These include a consideration of the impacts of the financial crisis, the ranking of the utility segments based on business risk, the levels of key credit metrics that are associated with the actual credit ratings of relatively pure-play Canadian utilities, and the levels of equity ratios that are associated with the actual credit ratings of relatively pure-play Canadian utilities. Two factors that particularly impacted the electric transmission sector were also examined; the impact of CWIP and the impact of the Transmission Regulation. Finally, three factors specific to certain individual utilities were examined; the non-taxable status of a number of the utilities, the small size of AltaGas, and the competitive situation facing ATCO Pipelines.

411. Accordingly, the Commission makes the following findings:

1. The credit crisis warrants an increase in the equity ratios for all utilities to reflect increased risk and the re-pricing of risk.
2. 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 percent 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.
3. The analysis of the equity ratios of relatively pure play Canadian utilities and their actual credit ratings does not indicate that any equity ratio increase is required.
4. The business risk analysis does not indicate that there have been major changes in the relative risks of the various utilities segments. Hence, any increase in equity ratios should be relatively uniform across the sectors and individual utilities unless utility-specific considerations require otherwise.

412. After considering all of the above the Commission awards a 2 percentage point base increase in the equity ratios of the Alberta utilities. Company specific adjustments to this base increase are as follows:

AltaLink, ATCO Electric and TransAlta

These electric transmission utilities are awarded a 3 percentage point increase to their equity ratios. This consists of the 2 percentage point base increase discussed above plus an additional 1 percentage point increase in recognition of the impacts of the large capital additions forecast by these utilities and the resulting negative impacts on their credit metrics.

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

circumstances in the capital markets have changed. The utilities submitted that the traditional expectation that corporate bond rates and market equity returns would decline as the Bank of Canada interest rate and 30 year Government of Canada bond rates declined is no longer the reality.[385] Therefore, since the formula was based on the expectation that that relationship would continue and it did not, the formula has calculated a lower rate of return than is required in 2009. Other utilities argued that the formula never[386] has produced a fair ROE because it relies too heavily on one factor (the level and movement of the 30-year Government of Canada bond rate) and does not consider other factors such as earnings of comparable utilities. In particular, it does not take into account the high rates of return and higher equity thickness generally awarded by United States utility regulators.

416. The interveners unanimously asserted that the formula is not broken. It does not produce too low a rate of return. They say that there is no evidence that the utilities have been unable to raise capital or that their financial integrity has been impaired. Indeed, they argue that evidence of stand-alone Canadian utilities being sold at market to book ratios above one demonstrates that the formula may even have produced too high a rate of return.[387] Finally, they argue that United States regulatory awarded returns are not relevant because the circumstances under which the U.S. utilities operate result in higher risk for those utilities.

417. In this Decision, the Commission has undertaken an assessment of the generic rate of return on equity independently of the 2004 formula in order to establish a fair rate of return on equity for Alberta utilities in 2009 of 9.0 percent. The 2004 formula was developed based on the expectation that the rate of return it produced would move in the same direction as the return of the 30-year Government of Canada bond. If the movement in the bond return is not similar to the movement in the market return then at times the allowed return may be overstated or understated. The Commission accepts that the traditional relationships between Government of Canada 30-year bond rates and market equity returns did not continue through the entire period 2004 to the present. The Commission notes that between July 2008 and March 2009 the long Canada bonds rate declined more than 40 basis points.[388] The Toronto Stock Exchange halved in value and the required market equity rate of return appears to have increased at the same time. Because of the way the formula had been designed, it was not capable of adjusting for the unexpected changes in the relationships that occurred in the capital markets, as a result of the financial crisis. The formula produced results for 2009 that were not correlated with the market movements. The allowed return for 2009 that the formula would have produced was 8.61 percent.

418. At the hearing, interveners argued that financial markets are healing[389] and that the historical relationships reflected in the formula were quickly returning. However the Commission observes that after the low in the stock market was reached in March 2009, the Toronto Stock Exchange recovered nearly half of its losses[390] at the same time as the yield on long Canada bonds increased by over 50 basis points.[391] Directionally, long Canada bonds

[385] Written Evidence of AltaLink Management Ltd., Exhibit 57.03, Figure 1.2a and pages 9-10.
[386] ATCO Argument, Exhibit 390.02, pages 4-5 and Evidence of Dr. Coyne Figure 1, Exhibit 50.01, Section 3.0, pages 4-4
[387] Calgary Argument, Exhibit 386.02, pages 17-18 and UCA Argument, Exhibit 387.01, page 86.
[388] Exhibit 367.03.
[389] CAPP Argument, Exhibit 388.02, page 51.
[390] Exhibit 310.
[391] Exhibit 367.03.

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 rates[396] 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.

422. Nevertheless, because of the number of utility companies regulated by the Commission and the frequency with which they appear before the Commission for revenue requirements, the Commission is not prepared to preclude a return to some sort of formula-based adjustment mechanism in the future when relationships in the capital markets have stabilized and are once again considered reasonably predictable. Dr. Booth suggested that the Commission could consider suspending the formula for a one-year period until a return to normal capital markets[399] and observed that such a return was already occurring during the hearing. However, the Commission is not prepared to simply re-impose the same formula or any formula without a careful assessment of changes in the capital markets and a reconsideration of the types of factors that should be built into a formula.

423. The Commission will not employ an adjustment formula for 2010. As explained above, the Commission has determined that a fair generic rate of return on equity for Alberta utilities for 2009 is 9.0 percent. Some parties suggested that the Commission could also establish a generic rate of return on equity for 2010.[400] Mr. Stout, on behalf of EPCOR also stated "[i]n all probability, what is determined is fair in the latter part of 2009 will probably, as far as we know, be still fair in 2010."[401] Being mindful of the date of the close of the record and based on the record of this proceeding, the Commission concludes that an ROE of 9.0 percent is fair for both 2009 and 2010. This decision to establish an allowed ROE for 2010 is consistent with the desire of investment community for a supportive, transparent and predictable regulatory environment.

424. In order to allow the capital markets some time to return to traditional relationships or show evidence of what the new relationships may be, the Commission orders that the generic ROE for 2011 also be established at the same 9.0 percent on an interim basis subject to change following a proceeding to be initiated in 2011.

8 CONCLUSION AND ORDER

425. The Commission has considered and weighed all of the evidence and argument on the record in determining a fair return on equity capital for participating utilities. The Commission has acted in accordance with its statutory responsibilities and has been guided in the exercise of its judgment by the fair return standard established by the courts. In the Commission's judgment, the total return resulting from the application of a generic ROE of 9.0 percent to the respective equity ratios set out in Table 17 results in a fair return on equity capital for each of the participating utilities for each of 2009 and 2010.

426. For greater certainty, the Commission notes that this Decision does not over-ride the terms of any negotiated settlement approved by the Commission or the terms of any other Commission Order which has established, on a final basis, the 2009 ROE or capital structure for a utility. In the event an approved negotiated settlement is not explicit regarding the final nature of the 2009 ROE or capital structure, parties may make application to the Commission as required.

[399] Transcript, pages 3275-3276.
[400] Transcript, pages 209 and 210.
[401] Transcript, page 494.

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

Dated in Calgary, Alberta on November 12, 2009.

ALBERTA UTILITIES COMMISSION

(original signed by)

Willie Grieve
Chair

(original signed by)

Tudor Beattie, Q.C.
Commissioner

(original signed by)

Bill Lyttle
Commissioner

(original signed by)

Mark Kolesar
Commissioner

(original signed by)

Anne Michaud
Commissioner

APPENDIX 1 – PROCEEDING PARTICIPANTS

(return to text)

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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
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EPCOR Distribution & Transmission Inc. (EPCOR) J. Liteplo
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Industrial Gas Consumers Association of Alberta G. Sproule

Name of Organization (Abbreviation) Counsel or Representative
Industrial Power Consumers and Cogenerators Association of Alberta M. Forster
City of Lethbridge M. Turner
Nexen Marketing D. White
NOVA Gas Transmission Ltd. (ngtl) A. Harris
The City of Red Deer M. Turner
Shell Canada Energy R. Gall
Shell Energy North America (Canada) Inc. T. Lange
Terasen Gas Inc. T. Loski
Office of the Utilities Consumer Advocate (UCA) R. McCreary
Westcoast Energy Inc. M. Thorp
Cities of Red Deer and Lethbridge M. Turner

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

Name of Organization (Abbreviation) Counsel or Representative	Witnesses
FortisAlberta Inc. (Fortis) T. Dalgleish, Q.C.	I. Lorimer M. Olson J. Vander Weide
Industrial Power Consumers and Cogenerators Association (IPCCA) M. Forster	
Office of the Utilities Consumer Advocate (UCA) N. Parker T. Shipley	L. Kryzanowski G. Roberts W. Marcus

Alberta Utilities Commission

Commission Panel
- W. Grieve, Chair
- T. Beattie, Q.C., Commissioner
- B. Lyttle, Commissioner
- M. Kolesar, Commissioner
- A. Michaud, Commissioner

Commission Staff
- B. McNulty (Commission Counsel)
- S. Allen
- B. Ploof
- P. Howard
- J. Thygesen
- S. Karim