

Alberta Energy And Utilities Board

**Generic Cost of Capital
Application No. 1271597**

**Written Evidence of John McCormick
on Behalf of
The City of Calgary and
The Canadian Association of Petroleum Producers**

September 12, 2003

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Executive Summary

- I support the recommendation of Dr. Booth that the Board adopt a generic formula for Alberta utilities similar to the NEB formula using an equity risk premium of 262 basis points.
- I have concluded that the market required rate of return on common equity is currently below the rates generated under the BCUC and NEB formulas.
- I have based this conclusion on market observations with respect to a group of utility based income funds, recent merger and acquisition activity, and the high market to book ratios of companies which have assets subject to the BCUC and NEB formulas.
- I disagree with the several experts that attach great importance to the allowed rates of return and equity layers of foreign utilities, as the differences have existed for years and are already reflected in the daily trading prices of the securities of Canadian utilities.
- I do not support the recommendations of the several experts who have suggested various short duration sunset provisions for the formula since, in my view, short duration sunset provisions would rob us of much of the certainty benefit of adopting a formula.
- I do not support the recommendations of the several experts who have suggested formulas based on utility bond yields or spreads since, in my view, the proponents of such a formula have not adequately addressed the technical problems of their suggestion, including the lack of pure play utilities and the method of selection of bonds and adjustment of the default risk factor.
- I do not agree that the Board should place emphasis on the opinions or purported guidelines or benchmarks of a particular rating agency, since there is little proof that these purported guidelines or benchmarks are stringently followed, and the function of the rating agency does not contain a requirement that the rates it would suggest utilities be entitled to earn are fair.

1 **Q.1 Please state your name, business address and occupation.**

2 A My name is John D. McCormick, and my business address is Suite 920, 910
3 7th Avenue South West, Calgary, Alberta. I am a financial consultant and
4 President of J. D. McCormick Financial Services, Inc. A description of my
5 professional qualifications is found in Attachment 1.

6 **Q.2 What is the purpose of your evidence at this proceeding?**

7 A The City of Calgary and the Canadian Association of Petroleum Producers have
8 requested that I provide my views with respect to the advisability of establishing
9 and the level of a generic rate of return formula for Alberta utilities. In addition,
10 they also asked me to comment on certain of market related themes contained in
11 my earlier evidence and evidence filed by various experts for the applicants.

12 **Q.3 Was the evidence prepared by you or under your direct supervision and
13 control?**

14 A Yes.

15 **Q.4 How is your evidence organized?**

16 A I have divided my evidence into two parts. In the first part, I offer observations
17 on various applicants' applied for equity return as compared to financial market
18 requirements, and the financial performance of utilities which have equity returns
19 set by an adjustment formula. In the second part, I reply to several statements in
20 the materials filed in this application with respect to the proposed capital
21 structure, methodology and changes in the financial markets.

22 **Q.5 Is the evidence in filed in this proceeding similar to that filed in the AltaLink,
23 ATCO Gas, ATCO Electric and ATCO Pipelines proceedings?**

24 A Yes, the themes in this evidence are similar to the evidence that I filed in those
25 proceedings, but because of the participation of additional parties, Nova, EDI,
26 AltaGas and Aquila, there are some additional matters upon which I will

1 comment. My evidence in the AltaLink¹, ATCO Gas², ATCO Electric³ and
2 ATCO Pipeline⁴ proceedings has been incorporated in this proceeding and for that
3 reason, I will not repeat that material unless it is required to illustrate a point of
4 broad application. Differences in the nature of each of those applications gave rise
5 to differences in the matters discussed in my evidence. Where there are
6 discussions of similar topics, the evidence in the most recent proceeding to deal
7 with the issue should be the point of departure.

8 In each of those recent proceeding, the various applicants, using varying
9 methodologies, all sought rates of return well above the rates available to
10 companies regulated under the NEB formula. Those higher rates were
11 characterized by them as the fair rate of return. In those proceedings, the question
12 of how billions of dollars in capital could be attracted to companies regulated
13 under the NEB and BCUC formulas went largely unanswered. In this proceeding,
14 the various applicants again seek returns and recommend formula that would
15 exceed the returns provided under the NEB and BCUC formulas. In my view the
16 various justifications for the higher returns, particularly those based upon
17 comparisons drawn from foreign markets remain unconvincing relative to the
18 Canadian market data.

19 **Q.6 Please summarize your conclusions.**

20 A The adoption of a formula would increase the certainty in the Alberta regulatory
21 environment.

22 The combination of the equity return applied for and the common equity ratio by
23 each of the utilities⁵ appear to be in excess of the current requirements of the

¹ See Exhibit 003-09, for my evidence, Exhibit 003-10 for certain IR materials, and Exhibit 003-12 for portions of the AltaLink transcript.

² See Exhibit 007-03, for my evidence, Exhibit 007-04 for certain IR materials, and Exhibit 007-08 for portions of the ATCO Gas transcript.

³ See Exhibit 006-03, for my evidence, Exhibit 006-04 for certain IR materials, and Exhibit 006-06 for portions of the ATCO Electric transcript.

⁴ See Exhibit 008-03, for my evidence, Exhibit 008-04 for certain IR materials, and Exhibit 008-06 for portions of the ATCO Pipelines transcript.

⁵ See Schedule 1 attached.

1 financial markets, relative to the markets' perception of the underlying business
2 risk of these Alberta utilities.

3 A more appropriate equity return would be one derived from a formula similar to
4 those used by the National Energy Board ("NEB")⁶ or the British Columbia
5 Utilities Commission ("BCUC")⁷, adjusted to recognize the shares of companies,
6 which are the owners of most regulated utilities subject to those formulas, are
7 trading at substantial premiums to the underlying book values. That adjustment
8 should reduce the current equity risk premium to the 262 basis point level
9 recommended by Dr. Booth.⁸

10 **Part I**

11 **Q.7 What facts do you rely on to support these conclusions?**

12 A I remain of the view that the best evidence of the appropriateness of the current
13 equity return resulting from these adjustment mechanisms and the allowed capital
14 structures is found in the trading prices of the shares⁹ of the companies which are
15 the owners of the utilities that earn the returns allowed by these formula. The
16 common shares of TransCanada, the public entity that investors must buy to
17 participate in owning NGTL, the Mainline and the BC System¹⁰, are trading at a
18 material premium to book value.¹¹ The common shares of Terasen (formerly BC

⁶ The RH-2-94 Decision, which established the NEB adjustment mechanism, covered Alberta Natural Gas Company Ltd, Foothills Pipe Lines Ltd., TransCanada Pipelines Ltd., Trans Mountain Pipe Line Company Ltd., Trans Quebec & Maritimes Pipeline Inc. and Westcoast Energy Inc. From time to time, certain of these pipelines have entered into negotiated settlements with their shippers and returns under those negotiated settlements may vary from that determined under the adjustment mechanism. Subsequent to the RH-2-94 Decision the NEB adjusted the formula by removing a provision to round the result to the nearest 25 basis points.

⁷ The June 10, 1994 Decision of the British Columbia Utilities Commission on "Return on Common Equity" covered BC Gas Utility Ltd. (now Terasen Gas), Pacific Northern Gas Ltd. and West Kootenay Power Ltd. The return for Centra Gas Fort St. John was also determined to be the average of the ROEs allowed to BC Gas and PNG. See page 35. In the August 26, 1999 Decision the BCUC determined, among other things, a constant risk premium for low interest rates.

⁸ Dr. Evans is also recommending the adoption of the NEB formula, although with different parameters related to equity return and bond yield. See CAL-ALP-Evans-17.

⁹ NGTL expresses a contrary view in CAPP-NGTL-21 (a).

¹⁰ TransCanada's BC System is the former Alberta Natural Gas.

¹¹ On September 9, 2003, TransCanada shares were trading at 2.08 times the June 30, 2003 book value. Since December 1995, calculated on a quarterly basis, the shares of TransCanada have traded at an average 1.67 times book value. During that period the low was 1.02 times book, which occurred in March 2000,

1 Gas Inc.), the public entity that investors must buy to participate in owning
2 Terasen Gas,¹² Terasen Gas Vancouver Island (formerly Centra Gas British
3 Columbia)¹³ and the Trans Mountain Pipe Line¹⁴, are trading at a material
4 premium to book value¹⁵.

5 Although the corporate structure of Canadian Utilities is less weighted to
6 investments which enjoy the security of regulated returns than TransCanada, the
7 prices of its securities also support this view¹⁶. The common shares of Canadian
8 Utilities, the first public entity above the various ATCO applicants in the
9 ownership chain that investors could buy to participate in owning the various

following an announcement of a dividend cut and multimillion after-tax write down of certain unregulated assets. The high was 2.10 times book value.

While some authors may debate the appropriate small premium to allow an equity issue to be done without dilution, as the stock price approaches twice book value it is hard to imagine markets so turbulent as to require a 100% floatation allowance. As the expected rate of return rises above the market's current requirements, the stock price rises, forcing the market to book ratio up. If the goal of the process is to provide a rate of return which is fair in the context of current and reasonably foreseeable capital market requirements, for a stand-alone utility, the market to book value is a very helpful, although not perfect, indicator.

¹² The BCUC formula governs BC Gas Utility (now Terasen Gas), but owing to the withdrawal of its 2002 application, the 2001 return on equity continued to apply in 2002. See the Terasen 2003 Annual Information Form page 7.

¹³ Terasen Gas (Vancouver Island) (formerly Centra Gas British Columbia) has negotiated a 3 year incentive regulatory arrangement which expires in 2005. See page 9 of the Terasen 2003 Annual Information Form.

¹⁴ Although Trans Mountain could be regulated under the NEB formula, it has a negotiated incentive toll settlement with its shippers. See the Terasen 2003 Annual Information Form page 12.

¹⁵ On September 9, 2003, Terasen Inc. (formerly BC Gas) shares were trading at 1.78 times the June 2003 book value. Since September 2001, calculated on a quarterly basis, the shares of Terasen have traded at an average of 1.78 times book value.

¹⁶ The proportion of regulated assets was made a matter of record in each of the ATCO Gas and ATCO Electric proceedings. See CAL-ATCOGTA-125(a) in which ATCO Electric confirms the reply provided in CAL-AG-26(b) where ATCO Gas provides its calculation of the portion of assets that were subject to regulation for the period 1989 to 2001. For Canadian Utilities the portion of assets that were subject to regulation had fallen from a high of 97.23% in 1990 to 56.83% for 2001. For CU Inc. the portion of assets that were subject to regulation had fallen from a high of 99.99% in 1999 to 79.29% for 2001. In response to written questions by participants in the RH-4-2001 proceeding, TransCanada replied in ADOE 1.59 that the "unregulated business of TransCanada represents less than 10% of the total assets of the Company" and in CAPP 210, that the non-regulated businesses "do not have a material impact on TransCanada's consolidated financial fundamentals."

The directional importance of the change in the proportion of regulated investments can be inferred from the rating changes being applied to companies like TransAlta which have experienced a ratings reduction as the proportion of its regulated operations has declined. See also the DBRS Methodology in Rating Utilities, June 2002 in which the authors provide a general standard for Regulated, Mixed and Unregulated enterprises in which the debt capacity reduces from regulated to unregulated enterprises.

1 ATCO applicants, are trading at a material premium to book value.¹⁷ While not
2 all of the applicants are owned by publicly traded utility holding companies in
3 which the applicants make up a visible portion of the business, for those
4 companies where we are able to determine a substantial connection, the common
5 shares are trading at a material premium to book value.

6 As discussed in my earlier testimony, shares of utility holding companies are
7 trading well above book. I have not observed any more recent material market
8 developments to make me change my view.

9 I also see income funds attracting capital for utility type assets on market terms
10 that fully support the abundant nature of the allowed returns.

11 The combination of returns of the comparable utility asset based income funds
12 which have been so eminently successful in attracting capital, the high market-to-
13 book ratios for utilities with returns derived from formulas seen in the current
14 market, and the premiums paid by acquirors of utilities are highly suggestive that
15 the applied for returns are well in excess of the current requirements of the
16 financial markets, relative to the markets' perception of the underlying business
17 risk of these Alberta utilities.

18 **Q.8 Why should we care about the relationship of utility holding companies'**
19 **share prices relative to book value?**

20 A While regulatory boards have many responsibilities, one of them might be
21 described as assuring the continued financial health of the utility. One of the tests
22 to be met in the process of awarding the utility an appropriate rate of return is the
23 capital attraction test¹⁸. If the rate of return allowed by the regulatory authority
24 was materially below that which was required by the capital markets, the

¹⁷ As at September 9, 2003, Canadian Utilities shares were trading at approximately 1.8 times the June 30, 2003 book value. Since December 2000, calculated on a quarterly basis, the shares of Canadian Utilities have traded at an average of 1.96 times book value.

¹⁸ *In British Columbia Electric Railway Company Limited vs. Public Utilities Commission of British Columbia*, 1960 SCR 837.

1 attraction of the utility shares¹⁹ would fade and prices would fall to a fraction of
2 book value as the market compared the expectation of future to the required
3 return. Such a situation would be inappropriate. Just as the market would not
4 ignore unreasonably low rates of return, the market will not ignore a situation
5 where the rate of return allowed by a regulatory authority is materially above that
6 which was required by the capital markets. In that situation, we would expect to
7 see the additional earnings attract capital, increasing the share price and ultimately
8 bringing the return on market price into equilibrium with the allowed return.
9 While the situation of an allowed return in excess of the market required return
10 would be attractive to the current owners of utility shares, a return in excess of the
11 market required return at the expense of the ratepayers.

12 Real world current market data shows that capital is being attracted as many
13 utility holding companies in Canada are trading well above book, while earning a
14 return on a large portion of those assets which is generally calculated with
15 reference to the book value of the rate base.²⁰²¹

16 **Q.9 Is it correct to use the prices of securities of the publicly held parent of a**
17 **utility as a guide for determining whether the allowed return of the utility is**
18 **adequate in light of the business risks that the utility faces?**

19 A While the analysis would be easier with publicly traded stand-alone utilities,
20 important information can be drawn from the trading prices of the securities of
21 utility owners. For example, since TransCanada, the public entity which owns
22 several NEB regulated pipelines also owns other businesses, the view that we may
23 obtain of the required returns from the prices of securities is a little blurred by the
24 inclusion of those other businesses within the financing entity. Those other
25 businesses have included both regulated and unregulated businesses. To the extent

¹⁹ These comments are, of course, based on the assumption of a capital structure appropriate to the enterprise and the absence of catastrophic events. See also BR-NGTL-30.

²⁰ See CAPP-NGTL-13 (a & b), CAPP-NGTL-142, and CG-NGTL-59 with respect to financing of BBB rated utilities.

²¹ While not regulated under a Canadian formula, CAPP-NGLT-16 (b) provides an indication that high returns in other jurisdictions may also attract a high market to book ratio in its observation that certain units of Northern Border were sold at a market to book ratio of 1.94 times. See also CAPP-NGTL-80 (a).

1 that the other regulated businesses have returns that move in parallel with the
2 returns allowed by the NEB formula, there is little blurring.²² To the extent that
3 the proportion of unregulated business increases relative to the regulated
4 businesses and the unregulated businesses have returns that vary from the returns
5 allowed by the NEB formula, there may be more blurring. Fortunately, the
6 relative size of the unregulated businesses within the financing entity has been
7 reduced in recent years.²³ Share prices are the best evidence of the market reaction
8 to TransCanada's expected relative returns. Even Mr. Lackenbauer, one of
9 TransCanada's capital markets experts in the RH-4-2001 proceeding, testified that
10 "the proxy for [the mainline], which is not a perfect proxy, is the TransCanada
11 common equity".²⁴ While it would be ideal if each of the principle regulated
12 operations of TransCanada were in a separate financing vehicle so as to remove
13 any blurring, the Mainline remains the largest asset and is therefore a major driver
14 of TransCanada's results. The Alberta System is also a major asset and is also an
15 important driver of TransCanada's results.

16 The relative importance of the regulated returns to TransCanada's pipeline
17 investments can be seen in the performance of those segments of the business to
18 the profitability of the company as a whole. In my ATCO Pipelines evidence, I
19 presented a table which compared the regulated returns on four of TransCanada's
20 NEB regulated pipeline investments to the net income earned to common
21 shareholders calculated on average common equity for the period 1996 to 2002.
22 From 1996 to 1999, the TransCanada Mainline enjoyed the benefit of an incentive
23 arrangement and achieved returns above the formula. While in many years the

²² See the discussion of the "dirty window" in Dr. Booth's critique of company evidence. Certain of TransCanada's current pipeline investments were also part of the RH-2-94 decision, including Alberta Natural Gas Company Ltd, Foothills Pipe Lines Ltd., and Trans Quebec & Maritimes Pipeline Inc.

²³ On May 13, 2003, TransCanada announced that it had acquired the interests in the Foothills Pipelines companies owned by Duke Energy for consideration of \$257 million, including the assumption of \$152 million debt. Page 13 of the 2003 Annual Information Form of Westcoast Energy indicated an carrying value, as at December 2002, for those interests as approximately \$63.5 million, which indicates a market to book multiple of approximately 1.65 times. In CAPP-NGTL-18 NGTL indicated a 1.6 multiple. On December 23, 2002, TransCanada announced its participation in the purchase of certain nuclear generation assets in Ontario for a price of \$376 million.

1 percentage net income to common shareholders over average equity exceeded the
2 return provided under the formula, it was not always the case. In 1998 and 1999,
3 the unfortunate results of other portions of the enterprise caused the percentage
4 net income to common shareholders to be less than those rates allowed under the
5 formula, much less the incentive returns. It is noteworthy, that during the period
6 1996 to 2002, the average net income to common shareholders of TransCanada
7 has not equaled the average of the allowed returns under the NEB formula for that
8 period.

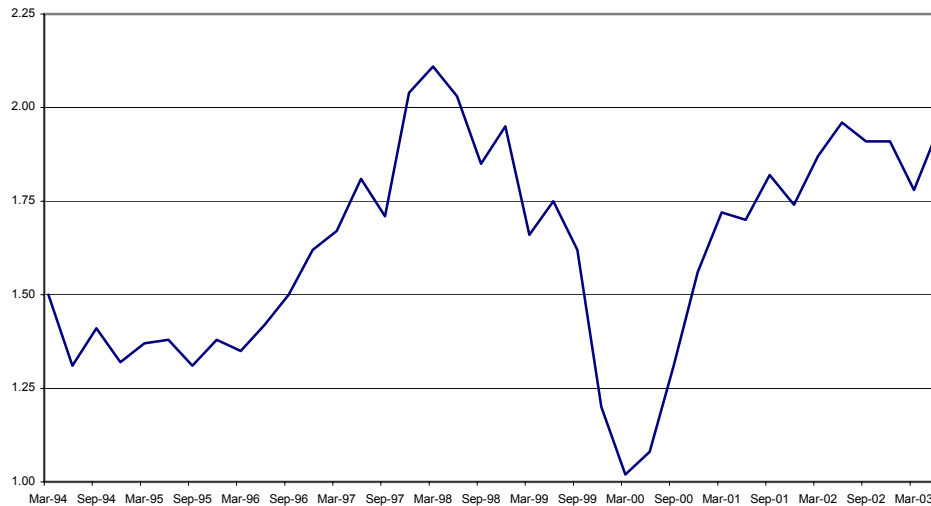
9 The impact of the unfortunate performance²⁵ of the unregulated operations can be
10 seen in the chart below which provides the market to book ratios of TransCanada
11 on a quarterly basis for the period March 1994 to June 2003.²⁶ The 1999 data
12 points for TransCanada were affected by, among other things, announcements of
13 management changes, a \$700 million write down related to its unregulated
14 investments and a cut in the dividend which was announced on December 8,
15 1999.²⁷

²⁴ Mr. Lackenbauer was then Deputy Chairman of BMO Nesbitt Burns. See RH-4-2001 Hearing Transcript February 28, 2002 at line 2073.

²⁵ While there were years in which the consolidated results were less than the allowed returns on regulated operations, the 1999-2000 period was particularly unfortunate in that it involved a material write down and a cut in the dividend from \$1.12 per share annualized rate to \$0.80, both of which were reflected in the share price. The \$1.12 per share annualized rate has yet to be restored. The current dividend rate is \$1.08, slightly below the pre-cut dividend rate. See CAPP-NGTL-157 in which Mr. Lackenbauer expresses the view that the dividend has been “effectively restored”.

²⁶ The chart is an extension of the chart contained in AE-CAL (JM)-14 in the ATCO Electric proceeding and BR-CAL-10(a) in the ATCO Gas proceeding. For a comment on the dividend cut, see BR-NGTL-16.

²⁷ Mr. Murphy noted a 44% decline in TransCanada share price in 1999 but declined to attribute the decline in market value among various factors.



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In the period before the application of the formula, the market to book ratio ranged between 1.3 and 1.5 times book. In today's market, the formula return contributes to the market to book ratio approaching 2.

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The same concepts apply to other companies, like Terasen, where the major portion of its financial results are related to its regulated utility businesses. The relative importance of the regulated utility businesses will vary over time as each corporation acquires²⁸ and divests, but while the regulated utility businesses remain a major portion of the business, their return on capital cannot help but be reflected in the trading price of the shares.

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Similarly, Canadian Utilities Limited holds both regulated and unregulated investments and as such, consideration must be given to the changing risk profile. The prospective returns of the unregulated business, the relative proportion of regulated and unregulated businesses, and the capital structure of each firm will also be of interest to prospective investors.

²⁸ On November 19, 2002, BC Gas (now Terasen) announced the acquisition of an interest in the Express Pipeline.

1 It is also noteworthy, that the NEB and BCUC formulas generate somewhat
2 different returns²⁹. For 2002, the NEB formula provided a 9.53% return to the
3 utilities covered by its formula while the BCUC formula offered a 9.13% return to
4 the low risk benchmark utility³⁰. For 2003, the comparative rates are 9.79% and
5 9.42%. One of the factors giving rise to the difference is the cap on equity risk
6 premium that exists in the BCUC formula when the forecast yield on the long-
7 term Canada bond falls below 6%.

8 **Q.10 Surely, the prices of the utility holding company shares have little or nothing**
9 **to do with the book values of its assets.**

10 A. Many market commentators will focus on earnings or the price earnings ratio,
11 cash flow or yield of a company in assessing the relative attraction of the shares
12 as an investment. For a stand-alone utility, with returns based on its rate base, the
13 earnings, cash flow and yield are all dependant in part on the allowed return and
14 the rate base, moderated by incentive opportunities or estimation variances. For a
15 stand-alone utility, earnings will be driven by the allowed rate of return on the
16 common equity component of the rate base. As such, the denominator of the price
17 earnings ratio will be the equity portion of the rate base multiplied by the return.
18 The cash flow will be based on those earnings plus the depreciation. The yield
19 will depend on the earnings and the company dividend policy. As such, the
20 numerator of the yield calculation will be the equity portion of the rate base
21 multiplied by the return multiplied by the dividend payout ratio.³¹

²⁹ The table below shows the returns that have resulted from the application of each of the BCUC and NEB formulas since their inception, the difference between the returns in each year and the average difference over the period.

ROE in %	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Average
NEB		12.25	11.25	10.67	10.21	9.58	9.90	9.61	9.53	9.79	
BCUC Benchmark	10.75	12.00	11.00	10.25	10.00	9.25	9.50	9.25	9.13	9.42	
		0.25	0.25	0.42	0.21	0.33	0.40	0.36	0.40	0.37	0.33

³⁰ BC Gas (now Terasen Gas) is the low risk benchmark utility, and the return on equity of other utilities covered by the formula will be slightly higher.

³¹ See CAPP-NGTL-157 (b).

1 So for a utility with returns based on its rate base, the market to book ratio could
2 be called the price to book ratio, which is very similar to the price to earnings
3 ratio since the earnings are the book value of the common equity times the
4 return.³²

5 **Q.11 Surely, the use of the prices of the utility holding company shares as a proxy**
6 **for the market required return on its regulated utility investment is a**
7 **violation of the stand-alone principle and a misapplication of the capital**
8 **attraction standard.**

9 A On the contrary, it is the use of the most obvious tool to arrive at a fair result.
10 TransCanada argued this point in its review and variance application in respect of
11 the RH-4-2001 Decision, but there is no other route for an investor to supply
12 capital to the Mainline, in TransCanada's case, or the Alberta System in the case
13 of NGTL, but through the public company.³³

14 In many proceedings, competing proponents of the "comparable earnings"
15 method and the "equity risk premium" method offer complex analysis of
16 corporate earnings, discount cash flows and select varying time periods and
17 geographical data sets³⁴ to estimate long term equity risk premiums and reach
18 divergent conclusions as to the required utility rate of return. In these debates
19 over the appropriate methods, I am reminded of the principle of "misdirection" in
20 magic³⁵ as the focus on method seems to overshadow the outcome of the process.
21 Those who would seek to misdirect regulators' attention may be hoping that those
22 regulators will not place emphasis on the real world current market data, which
23 shows many utility holding companies in Canada are trading well above book

³² See the discussion commencing at page 632 line 9 of the ATCO Pipelines transcript with respect to the allowed return, market to book and price earnings ratios with Ms. McShane referring to evidence given by Mr. Edmondson.

³³ See page 19 of the Application for Review and Variance, dated September 16, 2002. Following the denial of the review and variance application in February 2003 by the NEB, TransCanada applied for leave to appeal the decision to the Federal Court of Appeal and was granted that leave May 26, 2003.

³⁴ The evidence filed in RH-4-2001 on behalf of TransCanada relied in large measure on U.S. data. TransCanada also proposed the use of the "ATWACC" method.

³⁵ Misdirection in magic is the practice of directing the attention of the audience away from the movement of the hand which is executing the trick and directing that attention toward some other object.

1 while earning a return on a large portion of those assets which is generally
2 calculated with reference to the book value of the rate base.

3 We should little wonder at the fact that so many regulators have approved an
4 adjustment formula when faced with differences between the company and
5 intervenor experts. Having heard sometimes repetitive testimony supporting a
6 range of recommended returns in each proceeding, and after making an award
7 within the ranges recommended by regulatory experts, regulators can see the
8 shares of the utilities trading at generous levels throughout the test period.

9 In this proceeding, we are being directed by several of the applicants to focus on a
10 considerable amount of U.S. data³⁶ rather than the market-to-book ratios of utility
11 companies which are earning, in part, formula generated returns below that which
12 the applicant seeks.

13 **Q.12 Surely, the use of the comparable earnings and the equity risk premium**
14 **methods are enshrined in the legal precedents which establish the**
15 **responsibilities of the regulatory boards?**

16 A While this is primarily a legal question, the *Hope Natural Gas* decision relates, in
17 the language of its day that, “the return to the equity owner should be
18 commensurate with the returns on investments in other enterprises having
19 corresponding risks. That return should be sufficient to assure confidence in the
20 financial integrity of the enterprise, so as to maintain its credit and to attract
21 capital.”³⁷ It seems a very reasonable test, but like much of life, the devil is in the
22 details. The difficult task is figuring out which companies have corresponding or
23 similar risk, but we should not lose sight of the goal which is the adequate return,
24 not the process of considering what earnings are comparable or the process of
25 determining the optimal data to support the calculation of an equity risk premium.

³⁶ See Schedules 2 through 9 to the Statistical Exhibit to accompany the Prepared Testimony on Fair Return on Equity of Kathleen C. McShane.

³⁷ 320 U.S. page 591 at 603. This concept has been adopted in Canadian cases as well. At page 602, the decision also suggests that “it is the result reached not the method employed that is controlling.”

1 Certain of the proponents of the “comparable earnings” method and the “equity
2 risk premium” analysis strive to ignore the obvious. What is obvious to me is that
3 the common shares of utilities are generally trading at prices giving rise to market
4 to book multiples well above one. It is also obvious that major acquisitions of
5 utilities are taking place by utilities and others at premiums to the trading market
6 prices which were already at a premium to book value.³⁸ There is nothing quite
7 like a takeover bid to demonstrate that capital is being attracted to the rate base of
8 a utility.

9 As equity tends to be more permanent capital³⁹, utilities are more frequent issuers
10 of debt. While some capital may go to ventures other than their regulated assets,
11 there is a constant need to refinance maturing debt. It is the equity return that
12 helps underpin the debt obligations. In the absence of an equity return, the
13 interest coverage would approach one. In that regard, one might have expected
14 TransCanada and other companies regulated by the NEB formula to have been
15 restricted in recent years in their capital market access by the allegedly low rates
16 of equity return. For TransCanada, NGTL and the other utilities with which the
17 experts who have filed evidence are familiar, that appears not to have been the
18 case.⁴⁰

19 The senior debentures of TransCanada are and have been rated by DBRS as “A”
20 since July 1998. The medium term note debentures of Terasen (formerly BC Gas
21 Inc.) are rated by DBRS as “A (low)”. The long-term debt of Terasen Gas

³⁸ Recent transactions include the Duke acquisition of Westcoast, the Enbridge acquisition of interests in Alliance, the BC Gas (now Terasen) acquisition of Express Pipeline, and the acquisition by TransCanada of the Duke interests in Foothills.

³⁹ While often viewed as permanent capital, many Canadian issuers have undertaken Normal Course Issuer Bids, which allow the repurchase of outstanding equity. Among those issuers which have repurchased shares in the past year, we would find Canadian banks and several telecommunications companies. Canadian Utilities, on May 15, 2003, announced the renewal of its normal course issuer bid and reported on its purchases in the prior year. AltaGas in 2001 repurchased over 400,000 of its shares.

⁴⁰ See CAPP-NGTL-13 (a & b) with respect to NGTL’s ability to attract capital during the period since 1995 and TCPL since 1998. See also CAPP-NGTL-142 in which Mr. Lackenbauer observes that none of the utilities with which he is familiar have raised capital on unreasonable terms. See also CG-AUI-11, in which we learn that Ms. McShane has not surveyed utilities to determine if they have had specific difficulties with obtaining financing. See also RH-4-2001 proceeding transcript for February 27, 2001 at

1 (formerly BC Gas Utility) is and has been rated by DBRS as “A” since at least
2 1992. The senior debentures of Canadian Utilities are rated as “A” by DBRS and
3 “A+” by S&P.⁴¹ Debentures of each of these firms will trade at spreads over the
4 comparable government bonds of similar term within the range that ebbs and
5 flows as demand for credit changes over time.

6 **Q.13 Do you agree that the various applicants need be awarded the applied for**
7 **equity returns which range from 10.5% to 11.5%?**

8 A No, I do not. The requested returns are even greater than the ROE resulting from
9 the NEB and BCUC adjustment mechanisms and those formula generated returns
10 appear to be unduly generous.

11 The 2002 NEB formula calculation produced an allowed ROE of 9.53% and, for
12 2003, a ROE of 9.79%⁴². The BCUC formula produced an allowed ROE of
13 9.13% for 2002 and a ROE of 9.42% for 2003, in each case for a low risk
14 benchmark utility⁴³. Each of these formulas operates based on expected future
15 bond rates. It is clear that they did not result in allowed ROEs in the range of
16 10.5% to 11.5% for 2003. Based on the current interest rate conditions, with the
17 10-year Canada bond trading at yields of approximately 4.82%⁴⁴, it is unlikely that
18 these mechanisms will generate a rate of return approaching 10.5% to 11.5% for
19 2004⁴⁵. A host of utilities are able to access the capital markets with the ROEs
20 generated by these adjustment mechanisms. In my view, the applicants have
21 presented no realistic justification for its request for returns of 10.5% to 11.5%,

lines 820-1, where Mr. Girling of TransCanada replies to the question “When, since early 1999, have you been unable to raise debt on reasonable terms and conditions?” by saying “We haven’t been.”

⁴¹ Certain ratings are found as attachments to CAL-AP-20, and ratings information on other utility issuers is found in CAL-AP-76 (f) and Schedule 1 to the Prepared Testimony of Kathleen C. McShane.

⁴² The 2003 NEB return on equity was announced December 5, 2002.

⁴³ For 2003, see letter L-46-02 dated November 21, 2002 and for 2002, see letter L-43-01 dated November 26, 2001.

⁴⁴ The September 8, 2003 rate for series B114016.

⁴⁵ Using the NEB formula, which is more generous than the BCUC formula in periods of low interest rates, to arrive at an 11.5% ROE for 2004, the 10-year forecast yield would need to rise from the 5.50% rate used in the 2002 calculation to approximately 7.78%, assuming that the 10 to 30 year spread is held constant at 48 basis points.

1 which are up to 170 basis points over what is allowed to companies regulated
2 under the NEB adjustment mechanism.

3 It is also noteworthy that, in spite of being burdened with low awarded or formula
4 regulated returns, in the absence of any incentive returns, it appears that none of
5 the utilities with which some of the experts are familiar have been prevented from
6 accessing capital on reasonable terms.⁴⁶

7 **Q.14 Are there other utilities that have been awarded or negotiated an equity**
8 **return of 11.5%?**

9 A Yes, there are examples of utilities being awarded or negotiating returns in the
10 11% range but when discussing historical awards or negotiations it is important to
11 remember the time or business context of that decision or agreement. While it is
12 difficult to extract the equity return allowed in a “black box” or package
13 negotiation, there are examples of negotiated returns in the 11% range. In
14 Canada, the Alliance Pipeline is allowed 11.3% on its 30% equity layer and in the
15 U.S. it is allowed 10.7% ROE.⁴⁷ The relative position of the Alliance Pipeline
16 11.3% allowed return relative to the current market required return on equity can
17 be seen in the profits earned by the former owners as the interests in the Canadian
18 portion were combined and repackaged as part of the Enbridge Income Fund.⁴⁸
19 Maritimes & Northeast is allowed a 13% return on its 25% equity layer for its
20 first 5 years ending in 2004.⁴⁹ The rates of return were determined for Alliance
21 and Maritimes & Northeast in the recognition that Alliance and Maritimes &

⁴⁶ See CAPP-NGTL-13 (a & b) with respect to NGTL’s ability to attract capital during the period since 1995 and TCPL since 1998. See also CAR-NGTL-6 (b). See also CAPP-NGTL-142 in which Mr. Lackenbauer observes that none of the utilities with which he is familiar have raise capital on unreasonable terms and CG-NGTL-59 with respect to financing of BBB rated utilities.

⁴⁷ Alliance Pipeline Limited Partnership, Bond Rating DBRS, June 28, 2002, page 3. Mr. McCormick is of the view that the returns to investors which may be available in other countries are relevant to the Canadian capital markets and are reflected in the daily trading prices of Canadian securities. The returns on foreign securities to a Canadian investor may be affected by changes in currency exchange rates, withholding taxes, local and foreign tax incentives, access to information and other factors. See also BR-NGTL-07 (b) which notes the original Alliance return was to have been 12% on 30% with incentives or risk based on construction costs..

⁴⁸ See CAL-ATCO-McShane-1 (e).

⁴⁹ Maritimes & Northeast Pipeline Limited Partnership, Bond Rating DBRS, August 26, 2002, page 3.

1 Northeast were new pipelines facing different risks and were negotiated in
2 advance of the construction. They were also negotiated in a different interest rate
3 environment. From September 1996 to June 1997 the 10-year Canada bond was
4 in the range of 7.16% to 6.14%. At the end of August 2003, the same rate was
5 4.96%.

6 For the sake of contrast between the applicants' requests for returns in the range
7 of 10.5% to 11.5%, I compared that request to the allowed returns of some local
8 gas and electric utilities and found that most had been awarded returns in the
9 9.7% to 9.9% range⁵⁰ before incentives.

10 **Q.15 Do you agree that there have been significant changes in financial markets**
11 **over the last few years** ⁵¹?

12 A It would be difficult to argue that there have not been significant changes in the
13 financial markets over the last few years. Investors are all too well aware of the
14 term "irrational exuberance"⁵² and the disclosures surrounding the accounting at
15 Enron, WorldCom and Global Crossing. With all those changes, in some respects
16 we have returned to equity market levels similar to that earlier time. In 1997, the
17 TSE 300 index began the year at 5,927 and ranged from 5,679 to 7,210. The
18 index hit a high of 11,388.8 in 2001 and has since retreated to a level of
19 approximately 5,635⁵³ as the renamed S&P/TSX composite index. On December
20 27, 2002, the index had returned to 6,595. On September 2, 2003, the index
21 closed at 7,566. The performance graph in the Management Proxy Circular for
22 Canadian Utilities, dated March 5, 2003, gives us an indication of the relative

⁵⁰ While not intending to be exhaustive, for 2003, the BCUC allowed PNG, equity returns of 9.82% and 10.17% on segments of its operations. Gaz Metropolitan, which is the subject of an incentive arrangement, was awarded 9.89% for 2003 with an incentive of 0.45% for expected productivity gains. For 2003, the OEB formula generated a return of 9.69%. Newfoundland Power which was awarded 9.75% for 2003.

⁵¹ See page 12 of 48 to page 19 of 48, Prepared Testimony of Kathleen C. McShane on Fair return on Equity, and pages 6 through 16 Written Evidence of Gordon S. Lackenbauer.

⁵² While not necessarily the first use of the term, please see the remarks of Mr. Alan Greenspan on December 5, 1996, found at <http://www.federalreserve.gov/boarddocs/speeches/1996/19961205.htm>. We note that the period during which Mr. Greenspan was expressing concern about "irrational exuberance" began contemporaneously with or before the 1997 period the applicant has used as its base for changes in financial markets.

⁵³ October 9, 2002 close.

1 performance of the gas and electrical utilities subindex to the broader market⁵⁴.
2 This period witnessed a dramatic rise and fall in the prices of technology stocks
3 which have been described by some commentators as a bubble. During this
4 period, there has also been a tremendous growth in the number of income funds
5 and trusts listed on Canadian stock exchanges.

6 On the debt side, investors will be well aware that interest rates have fallen. The
7 monthly data for Government of Canada marketable bonds over ten years⁵⁵
8 provided average yields during 1996 that ranged between 6.42% and 8.07%.
9 During 1997, they ranged from 5.78% and 7.07%. In 1998, they ranged between
10 5.08% and 5.78%. During 2003, the Government of Canada marketable bonds
11 over ten years have ranged from 4.68% to 5.60% and are currently 5.37%⁵⁶.

12 The monthly data for Government of Canada real return bonds⁵⁷ provided yields
13 during 1996 that ranged between 3.97% and 4.99%. During 1997, they ranged
14 from 3.95% and 4.34%. In 1998, they ranged between 3.85% and 4.17%. During
15 2003, the Government of Canada real return bonds have ranged from 2.79% to
16 3.32% and are currently 3.08%.

17 Having noted the “round trip” in the equity markets and the falling interest rates, I
18 must say that these changes in broad indices do not mean that I accept the
19 proposition that the applicants have been disadvantaged by changes in the capital
20 markets. In my view, these events do not provide sufficient support for the
21 requested increase in the equity risk premium sought by these applicants.

22 Several witnesses have contributed evidence that addresses other perceived
23 changes in the financial markets with respect to changes in RRSP limits, the
24 propensity for international investments, and various observations concerning the

⁵⁴ For the period December 1997 to December 2002 the gas and electrical utilities subindex is shown as outperforming the TSX Composite by a ratio of 133 to 107. A Management Proxy Circular for Canadian Utilities is incorporated into the record through CAL-AP-20(c) from the ATCO Pipelines proceeding.

⁵⁵ Bank of Canada Series B14013 provides monthly data, series B114022 provides daily data. Using the monthly series slightly compresses the range for each year since highs and lows may occur on days other than the final day of the month.

⁵⁶ September 8, 2003 value for series B114017.

⁵⁷ Bank of Canada Series B14081 provides monthly data, series B114018 provides daily data.

1 concept of globalization of the capital markets. While I will address several of
2 their specific comments, generally, each of the observations which they have
3 made about international opportunities and many additional factors which they
4 did not specifically address are fully reflected in the rising and falling prices of
5 Canadian securities as they trade daily. For that reason, I remain convinced that
6 whatever the level of Canadian interest in foreign stocks, or international interest
7 in Canadian stocks, the prices in the Canadian market reflect all those variations
8 in demand.⁵⁸ For that reason, I reject the suggestion that we must import foreign
9 metrics to determine the appropriate capital structure or allowed rate of return.

10 **Q.16 Do you have any specific observations on the aspects of globalization of**
11 **securities markets?**

12 A Yes.

13 Throughout the record, there are a number of references to foreign content with
14 respect to RRSP limits and data with respect to the extent of foreign content in
15 mutual funds. Both these topics have been considered in prior proceedings. In
16 her evidence, Ms. McShane raised the matter of the increase in the RRSP limits.⁵⁹
17 While I agree that the foreign investment limits have been raised, in my view the
18 more important statistic is not the limit but the actual level of utilization. In
19 studies discussed in the previous proceedings⁶⁰ the actual level of utilization of the
20 foreign content in RRSPs appears to be much less than the limit. Mr.
21 Lackenbauer also addressed this topic. He observed that synthetic structures
22 permit investors to circumvent the various foreign content limits.⁶¹ While he did
23 not quantify the use of the those structures, the fact that they are and may continue
24 to be in use is a factor already reflected in the share prices of Canadian equities.

⁵⁸ Ms. McShane may, in part, agree. See page 14 of 48 lines 16-17 of the Prepared Testimony on Fair Return on Equity by Kathleen C. McShane, “securities that are traded solely on a Canadian exchange will be priced relative to those that trade in the U.S.”.

⁵⁹ See page 12 of 48 lines 11-16 of the Prepared Testimony on Fair Return on Equity by Kathleen C. McShane.

⁶⁰ See the RBCDS study in CAL-AP-28 (b) from the ATCO Pipelines proceeding, about which study Mr. Lackenbauer was asked to comment in CAPP-NGTL-148. See also BR-CAL-8 in the ATCO Electric proceeding in which Drs. Booth and Berkowitz noted “Institutional ownership of foreign shares is only 17% and retail ownership through RRSPs is even lower at 9.8%.”

⁶¹ Written Evidence of Gordon S. Lackenbauer, July 2003, page 6 lines 10-11.

1 In Mr. Lackenbauer's evidence at page 6 he begins a discussion of certain
2 changes he perceives since the time of the last Board decision with respect to
3 NGTL in early 1996. While there was a rush of interest in certain foreign
4 investments in the intervening years, the portion of assets in international funds to
5 total industry assets from December 1995 to May 2003 grew 1%, from 25.6% to
6 26.6%.⁶² I believe that this is a small change in light of the significant increases in
7 many factors which would ease the ability of Canadian investors to participate in
8 these foreign mutual funds. With respect to the IFIC data used by some of the
9 other experts, the potential for funds of either foreign or domestic classification to
10 have securities of another classification has been documented⁶³, and as such there
11 is little ability to extrapolate changes in asset mix from the broad classifications
12 used by the IFIC.

13 Several of the experts have observed that certain companies in different countries
14 have larger equity layers than Canadian utilities.⁶⁴ They have also observed that
15 certain companies are allowed⁶⁵ or may earn different returns than Canadian
16 utilities. The response to both observations is that the prices of the securities of
17 the Canadian utilities would already reflect that knowledge, and the other
18 differences including the differences in the prevailing interest rates and current
19 and anticipated taxation policies.

20 **Q.17 Are the American precedents of companies allowed higher rates of return**
21 **and higher equity layer relevant?**

22 A To the extent that a Canadian utility competes with companies for debt and equity
23 capital, allowed returns on the regulated portion of each company's businesses are
24 of interest, but are only part of the picture. The prospective returns of the
25 unregulated business, the relative proportion of regulated and unregulated

⁶² CAPP-NGTL-149 (b).

⁶³ See the discussion at page 16 of my evidence in the AltaLink proceeding.

⁶⁴ See page 16 of 48 lines 14-17 of the Prepared Testimony on Fair Return on Equity by Kathleen C. McShane. See also page 3 lines 24-25 of the Written Evidence of Gordon S. Lackenbauer. See pages 12 and 13 of 26 of the Written Evidence of Paul J. Murphy and in particular tables 5 and 6.

⁶⁵ See Table 2 page 15 of 48 of the Prepared Testimony on Fair Return on Equity by Kathleen C. McShane. See page 14 of 26 of the Written Evidence of Paul J. Murphy and in particular table 7.

1 businesses, the capital structure of each firm, the prospect of changes in currency
2 values and the price of the shares will also be of interest to prospective investors.

3 Witnesses for TransCanada in RH-4-2001 drew the NEB's attention to a number
4 of American based pipeline and energy companies. In this proceeding NGTL has
5 made a similar argument but its current expert has used a slightly different sample
6 of companies. They have pointed out that these companies are allowed a higher
7 rate of return on a larger equity layer in respect of pipeline operations than the
8 equity return and equity layer which has been allowed to NGTL. This information
9 does not give the regulator the full picture. I observed that the debt instruments of
10 several of the companies discussed to support the proposition of higher returns on
11 higher equity layers had debt ratings differing from those of the Canadian utility.
12 Without a detailed examination of the covenants of each of the instruments rated
13 and the capital structure of each company, it is hard to attempt to explain the
14 variation of rating, but as the table below shows, several of the companies
15 identified as comparable have debt ratings lower than those of the Canadian
16 utility. As such, in the view of the rating agencies, the probability of repayment
17 on those debt instruments varies from those of the Canadian utility. For that
18 reason, I infer that there are elements of business and financial risk that differ
19 from those faced by holders of like instruments issued by the Canadian utility.

Company	Moody's Rating RH-4-2001	S&P Rating RH-4-2001	Moody's Rating now	S&P Rating now
Duke Energy	A1	A+	Baa1	BBB+
Columbia ⁶⁶	A3	BBB	Baa3	
El Paso /Coastal ⁶⁷	Baa2	BBB	Caa1	B+
Enron ⁶⁸	Ca	D	n/a	n/a
Kinder Morgan	Baa2	BBB		
TransCanada	A2	A-	A2	A-
Williams	Baa2	BBB	B2	B+

⁶⁶ Columbia was acquired by NiSource November 1, 2000.

⁶⁷ El Paso and Coastal merged in January 2001 in what the El Paso described in its 10K filing as a "\$24 billion merger". Certain debt instruments by companies related to El Paso have different debt ratings than the parent.

⁶⁸ Enron was the subject of insolvency proceedings.

1 Those portions of the Canadian market that are interested in these international
2 opportunities are aware of the differences in equity layer, allowed return and
3 ratings. All those aspects and more are reflected in the prices at which utilities in
4 Canada trade.

5 **Q.18 Is there other market information which you considered relevant to the issue**
6 **of required return on equity capital?**

7 A In the earlier proceedings⁶⁹, I touched on three areas of market information which
8 I felt should be added to the record. These three were, the increasing investor
9 interest in income funds and trusts, the reversal of the major gains earned by
10 technology stocks in the last few years, and, the implications arising from the
11 recent acquisition activity involving utilities. I will summarize and update my
12 views below.

13 **Q.19 Will you summarize your views with respect to the relevancy of the market**
14 **information concerning income funds?**

15 A. In my discussion of income funds the single most important point, relevant to the
16 issue of required returns on equity capital, is the low level of earned returns that
17 are attracting literally billions of dollars of equity capital to utility based income
18 funds.

19 There are a number of facts of which one would wish to be aware to make
20 comparisons of income funds to utilities and to compare organizations within
21 each of those groups to their peers in that group. For example, it is also important
22 to understand that income fund investors enjoy the distribution of essentially all
23 the earned returns and a high proportion of the depreciation or other cash flow
24 generated by the underlying assets. As such, for tax purposes the distribution can
25 be, in part, a return of capital. The existence of these differences has been
26 discussed in my earlier evidence.

⁶⁹ Generally, when I refer to the “earlier proceedings” or the “preceding cases”, I refer to the AltaLink and ATCO Gas, ATCO Electric and ATCO Pipelines proceedings in which I filed evidence.

1 In the evidence that I have filed in the preceding cases which are incorporated into
2 this record, I have addressed the significant growth that has occurred over the last
3 few years both in the number of funds and the market capital of existing funds as
4 many of the funds undertake further transactions. I will not repeat those statistics
5 again. I will also not repeat that filed evidence which addressed the comparability
6 of businesses of a sample of income funds, their capital structure⁷⁰, higher
7 financial risk due to distribution policies⁷¹, lack of limited liability, international
8 interest and levels of trading on US exchanges, and some other matters. I remain
9 of the view that none of these differences invalidates the conclusion to be drawn
10 that, returns of the income funds are representative of a market required rate of
11 return on equity materially lower than those suggested by the various applicants.

12 **Q.20 Will you comment on the market for income fund issues?**

13 A. Since I filed my evidence in the ATCO Pipelines matter in May, there have been a
14 great many issues. While not trying to be exhaustive I identified a great number of
15 issues which have raised approximately \$4 billion in capital.⁷² To provide a sense
16 that the market for income funds continues to attract capital, I would just like to
17 comment on two of the many issues.

18 In July 2003, the Yellow Pages Income Fund completed a transaction which was
19 originally intended to be \$935,00,000, but was increased through the use of the
20 underwriters over-allotment option to \$1,000,000,000. The fund was priced at
21 \$10 per unit and indicated distributions of \$0.0688 per month which provided a
22 yield at issue price, before personal taxes, of approximately 8.25%. In subsequent
23 trading the units have risen to \$11.20 which suggests a yield before personal taxes
24 of approximately 7.4%. As the owners of the Yellow Pages assets did not place all

⁷⁰ Mr. McCormick also discussed some aspects of the capital structure of income funds in AP-CAL-14 in the ATCO Pipelines proceeding.

⁷¹ Mr. McCormick also discussed some aspects of the distribution policies and investor liability of income funds in AP-CAL-15 in the ATCO Pipelines proceeding.

⁷² In the August 22, 2003 *BMO Nesbitt Burns Monthly Trust Report* at page 15, the authors noted \$2.1 billion of trust issues in the month of July 2003. I note that CAPP-NGTL-161 (m) requested the most recent issue of the *BMO Nesbitt Burns Monthly Trust Report*. The reply contained a copy of the August

1 of their interest in the income fund, there may be future issues. If we apply the
2 market value of the listed income fund units to the whole of the enterprise, the
3 implied value for the equity of the enterprise is approximately \$4 billion, a sum
4 slightly below the rate base of NGTL.⁷³ The billion dollar issue size shows the
5 capacity of the income fund market to absorb well priced quality assets and
6 dwarfs the equity component of the rate base of some of the applicants.⁷⁴

7 In my earlier filed testimony, I referred prospectively to the announced Enbridge
8 Income Fund transaction to establish a fund based on its 50% investment in the
9 Canadian portion of the Alliance Pipeline along with some of its Saskatchewan
10 assets. That transaction, which was announced May 26, 2003, has now closed
11 and may now represent the best income fund comparison with certain of the
12 applicants.

13 The Enbridge Income Fund completed a transaction which was originally
14 intended to be \$175 million, but was increased through the use of the
15 underwriters' over-allotment option to over \$201 million.⁷⁵ The fund was priced
16 at \$10 per unit and indicated distributions of \$0.06875 per month which provided
17 a yield before personal taxes at issue price of approximately 8.25%.⁷⁶ In
18 subsequent trading, the units have risen to \$11.73 which suggests a yield before
19 personal taxes of approximately 7.0%.⁷⁷ The prospectus indicated that
20 approximately 65% of the distributable cash in the first year would be taxable. In

2002 report which, being a year old, does not provide the most up to date information which should have been available to Mr. Lackenbauer.

⁷³ See CAPP-NGTL-24 (c).

⁷⁴ By way of example, the common equity component of the ATCO Pipelines rate base for 2004 was forecast to be approximately \$279 million in Exhibit 008-14. In CAPP-NGTL-24 (c) the company replied "the income trust market is not a viable option for the Alberta System." In CAPP-NGTL-82 (b) the NGTL balance sheet is shown as having regulatory capital of approximately \$1.6 billion.

⁷⁵ In CAL-EPC-Falconer-2 (q) we attempted to learn the quantum of additional demand or indicated interest that went unfilled, an amount usually known only to the underwriters and issuer, but were referred to SEDAR. In my experience those statistics are not available in company filings at SEDAR.

⁷⁶ See CAL-ATCO-15 (g) and (i). In CAL-ATCO-15 (i), ATCO indicates that the offering was marketed with an indicated yield of 8.25% to 8.5%. Closing the transaction at the lower end of the range is indicative of a good market reception.

⁷⁷ In CAPP-NGTL-80 (d), NGTL calculates a yield of 7.5% presumably based on a different market price. In CAPP-NGTL-24 (a), NGTL indicates that it does not know what investor expectations were with respect to the Enbridge Income Fund.

1 addition, the growth of distributions to a unitholder is moderated by an incentive
2 arrangement which awards the manager with an incentive fee equal to 25% of the
3 cash distributions per unit above the base amount.

4 With the Enbridge Income Fund transaction we have placed into a new financing
5 vehicle utility assets, the relative business risks of which are discussed in the
6 NGTL Evidence on page 39 of 45⁷⁸ and in the evidence of Mr. Johnson. The
7 character of the underlying assets has not changed as part of the purchase and sale
8 transaction. These assets will continue to earn their allowed return, subject to the
9 variations which may arise as a result of efficiencies or the realization of
10 performance risks. The former owner has earned a profit on the transaction.⁷⁹

11 The fund has, as part of the purchase transaction, added additional debt financing
12 to that which already burdened the assets, thereby increasing the financial risk.⁸⁰

13 The fund has entered into an incentive agreement with its manager to provide it
14 with 25% of the distributable cash over a base amount. As such, the returns which
15 attracted the capital to fund the acquisition of these assets were attracted by a
16 materially lower return than the 11.3% after-tax return allowed to the Alliance
17 assets.⁸¹

18 The purpose of this hearing is to reach a decision as to the advisability of
19 establishing a formula to adjust the allowed equity return for Alberta utilities. As
20 such, estimates of the cost of equity capital are the central focus. In financial
21 theory we know that an asset that is expected to earn its cost of capital, in
22 perpetuity, on its book value, is worth its book value.⁸² Several utilities in this
23 hearing have suggested that the reasonable range of the after tax cost of equity is
24 up to 11.50%. While we do not know what the perpetual returns of Alliance

⁷⁸ See also CAPP-NGTL-24(b).

⁷⁹ See the Interim Report to Shareholders for the six months ended June 30, 2003, available through www.sedar.com.

⁸⁰ In CAL-ATCO-15 (e-f), ATCO expresses the view that as a result of what it perceives as a restricted ability of income funds to raise debt, and the income fund distribution policy, the risk that financing can be obtained at reasonable rates has increased. The first part of that proposition appears to have been disproved by the fact that the Enbridge fund raised debt beyond the price of the additional Saskatchewan assets.

⁸¹ See CAPP-NGTL-24 (a) and 80 (d).

⁸² See BR-AP-14 in the ATCO Pipelines proceeding.

1 Pipeline will be we do know their near term allowed return is in the range of
2 11.3%. Owing to the premiums paid and the management incentive arrangements,
3 the return to an investor in the Enbridge Income Fund must be materially less than
4 11.3%. As such the justifications by the various applicants for the after tax
5 returns in the 11% range seem incredible to me.

6 **Q.21 Will you update the return, yield and market to book ratios of your sample**
7 **of income funds?**

8 To update the return and yield information provided in my earlier evidence, the
9 table below presents the return on average equity earned by certain electrical
10 generation and pipeline income funds during 1998, 2002, the 12 months ended
11 June 2003, their recent distribution yields and market capital.⁸³

Fund	1998 Return	2002 Return	June 2003 Return	Yield	Market Capital \$000,000
Algonquin Power Income Fund	3.5%	3.5%	5.5%	9.5%	\$ 631
Clean Power Income Fund ⁸⁴		3.7%	-4.5%	9.8%	\$ 325
Great Lakes Hydro Income Fund ⁸⁵		6.6%	5.0%	7.9%	\$ 770
Northland Power Income Fund	5.6%	8.2%	6.7%	8.3%	\$ 433
Pembina Pipeline Income Fund	3.5%	7.9%	6.9%	8.6%	\$ 1,144
Average	4.2%	6.0%	3.9%	8.8%	

12 While the earned return of each fund will vary based on a host of factors,
13 including business cycles and commodity prices, none of the funds in the table
14 above earned a return on equity equal to the lowest of those sought by the
15 applicants. None of these funds pay a yield before personal taxes, which includes
16 a partial return of capital, equal to the 10.5% to 11.5% after-tax rate of return
17 sought by the applicants, and in some cases these distributions are up to 85%
18 currently taxable.⁸⁶ Schedule 2, attached to this evidence provides a calculation of

⁸³ The funds selected were listed in a recent National Post article “Betting on a Shrinking Resource” published on November 13, 2002, and included all the power and pipeline funds listed therein having approximately 12 months operating history. The yield was calculated as the annualized value of the indicated distribution divided by the price on August 29, 2003.

⁸⁴ Clean Power Income Fund was established in October 2001.

⁸⁵ Great Lakes Hydro Income Fund was established in September 1999.

⁸⁶ By way of example, Pembina has indicated that approximately 85% of 2002 distributions will be taxable. In February 2003, Northland’s web site was estimating that 65% of its 2003 distributions would be taxable as business income, with 35% as a return of capital. In February 2003, Great Lakes Hydro’s web site was

1 the after-tax return to an Ontario taxpayer of a one year investment in Pembina
2 units which has been updated from my ATCO Pipelines testimony.⁸⁷ For the 12
3 months ended June 2003, the maximum return earned by these funds was the
4 approximately 6.9% return achieved by Pembina. Without earning the return
5 which the applicants seek, many of these funds have been able to attract capital.⁸⁸

6 If one were to assume that the market's required equity return was in the
7 neighborhood of the 11.5% after-tax return suggested by some of the applicants,
8 or even the 9.4% to 9.8% returns currently allowed under the BCUC and NEB
9 formulas, it might follow that income trusts averaging a rate of return of
10 approximately 6% or less should be trading at a discount to book value. The table
11 below sets out the market to book ratio of each of the income funds in the table
12 above, calculated using the quarter end market prices⁸⁹. The market prices and the
13 history of issues by these funds, in my opinion, make a significant statement
14 about the adequacy of single digit returns on equity in the current market.

Fund	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03
Algonquin Power Income Fund	1.3 x	1.2 x	1.2 x	1.3 x	1.2 x	1.1 x	1.2 x
Clean Power Income Fund	1.0 x	1.1 x	1.1 x	1.2 x	1.1 x	1.1 x	1.3 x
Great Lakes Hydro Income Fund	1.3 x	1.4 x	1.3 x	1.3 x	1.4 x	1.5 x	1.6 x
Northland Power Income Fund	1.5 x	1.4 x	1.5 x	1.5 x	1.5 x	1.3 x	1.5 x
Pembina Pipeline Income Fund	1.3 x	1.3 x	1.4 x	1.4 x	1.4 x	1.4 x	1.2 x
Average	1.3 x	1.3 x	1.3 x	1.3 x	1.3 x	1.3 x	1.3 x

estimating that 60% of its distributions would be taxable as business income, with 40% as a return of capital and tax deferred. Algonquin Power has indicated the approximately 50% of its distributions will be taxable in both 2002 and 2003. Not all funds provide estimates of future tax deferral characteristics.

⁸⁷ In CAPP-NGTL-161 (c), Mr. Lackenbauer calculates a 5.9% geometric average after-tax return to the holder of a Pembina unit for the period from inception to December 31, 2002. In CAPP-NGTL-161 (d), Mr. Lackenbauer calculates that investor holding a long Canada bond and determines the geometric average after-tax return to the holder of that bond for the same period was 4.1%.

In CAPP-NGTL-161 (f and g), Mr. Lackenbauer calculates the similar returns for and investor holding and Algonquin unit since its inception and a long Canada bond, which earned respectively 4.9% and 3.6%.

⁸⁸ In addition to the various financings of these five funds reviewed in my earlier evidence, the Clean Power Income Fund filed a prospectus for \$32 million in trust units July 2003. The Pembina Pipeline Income Fund filed a prospectus for \$220 million principal amount of convertible debentures in June 2003.

⁸⁹ Market to book ratios and yield calculations are used by research analysts in assessing whether to recommend the purchase or sale of securities. Other valuation criteria including earnings or cash flow based measures for a regulated entity which is allowed to earn a return on its rate base, are often a function of the allowed return, the rate base, and some other factors including the proportion of income retained or distributed.

1 **Q.22 Will you comment on the concerns which the applicants in this proceeding**
2 **have expressed with respect to income funds and their comparability with**
3 **utilities?**

4 In the various proceedings before this Board this year in which I have presented
5 capital markets based evidence using income funds as examples, the applicants, in
6 rebuttal, have offered a range of comments on the subject of income funds. In my
7 evidence in the ATCO Pipelines proceeding, I addressed three of the objections
8 that were raised in articles filed in the rebuttal evidence⁹⁰ in other proceedings,
9 including the propositions that “Americans don’t” buy income funds, investors
10 “may be lucky” to get their return “for a year or two”, and “institutions do not
11 purchase income funds”. I will not repeat that evidence, but I remain of the view
12 that the statement that “Americans don’t” buy income funds is simply wrong.
13 American’s do buy income funds that provide investment opportunities otherwise
14 not directly available to them. There is ample evidence of institutional purchases
15 of income funds in the public disclosure of private placements, mutual fund
16 holdings and block trades. While the returns of income funds may vary over time,
17 there is a substantial history extending from the 1980’s, of income funds
18 continuing to make distributions to their unit holders. Clearly, income funds have
19 paid returns for more than “a year or two”.

20 In this proceeding there were several concerns expressed in respect of income
21 funds upon which I would like to comment, but before doing so, I would like to
22 provide some additional information on a topic that arose in the rebuttal evidence
23 in the ATCO Pipelines proceeding.

24 *“The difference in capital structure renders the comparability of returns on equity*
25 *problematic”⁹¹*

26 Schedule 3, attached, provides a table that presents a numerical example to clarify
27 one matter which arose in the Rebuttal Evidence in the ATCO Pipelines

⁹⁰ In the April 1, 2003, ATCO Electric Rebuttal Evidence, two articles were attached, see page 32 of 53 and Attachments B and C.

⁹¹ Page 13 of 23, lines 21-22, in the ATCO Pipelines proceeding Rebuttal Evidence of Ms. McShane.

1 proceeding. The discussion in the rebuttal evidence related to the differences in
2 capital structure and suggested that the difference in capital structure between
3 income funds and utilities renders the comparability of returns on equity
4 problematic. I believe the comparison can be made easy with an understanding
5 that assets which are physically identical and have the same income earning
6 capacity when purchased at a premium will generate different returns.

7 On page 1 of Schedule 3, I have expanded Ms. McShane's example back to the
8 EBITDA level of the income statement and demonstrate that her comparable
9 utility and income fund assets generate different returns at the EBITDA level.

10 This should not be a surprise, since the owners of the physical assets
11 contemplated for inclusion in an income fund will wish to sell those assets into
12 the fund at a profit. On page 2 of that schedule, I present a calculation to
13 demonstrate that the owner of utility type assets which generate a certain
14 EBITDA, on these assumptions and ignoring costs of the transaction, could
15 generate the 7% return earnings or the 10% distribution which is assumed to be
16 required to create an income fund, by selling the assets to the fund at
17 approximately 1.50 times book. Depending upon what characteristics are
18 acceptable to the market at the time the income fund is structured, there are a host
19 of possible prices that could be paid for the assets based on different choices of
20 capital structure or different target levels of income at either EBITDA, EBIT or
21 EBT levels. Effectively, the owner of the "trustable" assets develops a structure
22 which the underwriter believes is reasonable in the context of the current market
23 for income trusts.

24 I believe that the information in Schedule 3 makes it clear that simply comparing
25 the percentage of debt to total capitalization of an income fund and a utility in a
26 similar industry is superficial. If we assume that the income fund and utility each
27 owned one half of identical utility assets, as the income fund would have acquired
28 them at a premium, the book value of the income fund's portion of the productive
29 asset would be greater. As the EBITDA capacity of the productive asset would be
30 unchanged, as a percentage of total capital, the income fund cannot provide the

1 same degree of interest coverage to debt holders based on an equal ratio of debt to
2 total capital.

3 Turning our attention to this proceeding, several of the applicants⁹² have brought
4 forward additional evidence on income funds, which denigrates the value of the
5 market information related income funds in respect of the market required rates of
6 return on equity. Having reviewed that evidence, I remain of the view the returns
7 of the income fund sector are an important guide to the Board in considering the
8 question of the market required return. In the following paragraphs I will
9 comment on a number of the specific comments which were made in the
10 applicants' evidence.

11 *"Growth is not fundamental to income funds"*⁹³

12 This proposition, used to distinguish income funds from utilities, seems to be
13 based on the unstated premise that growth is fundamental to utilities.⁹⁴ While
14 growth would clearly be attractive to investors, just to note one example, NGTL
15 appears to be in a period of declining rate base.⁹⁵ Growth is also not an anathema
16 to income funds, although it tends to be less organic growth and more growth
17 through acquisition. There are a number of references throughout the evidence to
18 the Alliance Pipeline and its growth prospects.⁹⁶ The sale of Enbridge's
19 ownership interest in the Alliance Pipeline to an income fund did not alter the
20 growth prospects of the pipeline assets. While generally income funds try to
21 maintain high levels of distributions, my review of the documentation of income
22 funds gives the manager or trustees discretion as to the distributions so as to meet

⁹² The ATCO companies discuss income funds in Section 2.1 of the ATCO Companies Evidence on the Fair Return on Equity on pages 6 of 11 to 11 of 11.

⁹³ Section 2.1 of the ATCO Companies Evidence on the Fair Return on Equity on page 6 of 11 line 18.

⁹⁴ See also CAL-ATCO-10.

⁹⁵ See schedule C to the NGTL Minimum Filing Requirement in which rate base is shown in decline from approximately \$5 billion to \$4.7 billion between 2002 and 2004.

⁹⁶ By way of example, see page 29 of 45 line 16, and pages 39 to 41 of 45 in the Written Evidence of NGTL.

1 the present and future obligations of the fund and maintain reasonable reserves for
2 any purpose.⁹⁷

3 *“The method of raising capital for growth in Income Funds remains in*
4 *question”*⁹⁸

5 Financial markets are constantly changing. Interest rates rise and fall.
6 Commodity prices shift, often in unexpected ways. The record of resiliency in the
7 income fund market extends back into the 1980’s.⁹⁹ My evidence in the prior
8 proceedings was not intended as some weak assurance that the prevailing market
9 conditions would remain constant. My evidence was and continues to be, that
10 income funds with utility type assets indisputably are currently able to attract
11 billions of dollars of capital at rates of return dramatically below the after-tax
12 rates sought by the applicants. As the individual income trusts experience various
13 operational successes or failures and interest rates and other market conditions
14 change, the prices at which their units will trade in the market and the degree of
15 discount an underwriter may require in a financing will vary. Those various
16 factors will also affect the prices at which a utility’s securities might be offered.

17 Both utilities and income funds go to the market to raise capital to fund
18 acquisitions. As a result of the various policies of income funds to distribute a
19 large portion of the available cash to the unit holders, any material acquisition
20 must be validated by an equity offering. On the utility side, Terasen raised over

⁹⁷ Distributable Cash of an income fund usually excludes “amounts which the Manager may reasonably consider necessary to provide for the payment of any liabilities which have been or will be incurred by the Fund and any amounts for reasonable reserves in connection with pursuing any purpose or activity of the fund.” Capital expenditures are specifically listed as a risk to the continuity of distributions in the Enbridge Income fund prospectus at page 92. For an alternate view by ATCO, see CAL-ATCO-11 (a) in which ATCO suggests there is “little opportunity for management to determine that a portion of the cash flow should be retained to finance growth”.

⁹⁸ See Section 2.1 of the ATCO Companies Evidence on the Fair Return on Equity on page 6 of 11 lines 18-19. This topic was the subject of CAL-ATCO-11.

⁹⁹ In CAL-ATCO-12, ATCO observes that “Income funds have not yet proven successful in all market conditions.” While we have not enjoyed “all” market conditions in that time period, I am of the view that the level of resiliency has been adequate in a 20-year period with large variations in market conditions. During this period there have also been incidents which threatened the existence of certain utility owners. See CAPP-NGTL-39 (c).

1 \$200 million of equity under a prospectus filed in December 2002 to partly fund¹⁰⁰
2 the acquisition of Express. Earlier that year Terasen had also issued equity to fund
3 the acquisition of Centra Gas.

4 Both income funds and utilities have access to lines of credit. Great Lakes is
5 showing a \$150 million acquisition line on its balance sheet. One could also
6 observe that many of the income funds have lower debt levels as a proportion of
7 capitalization and as such may have more flexibility than utilities in uncertain
8 market conditions.

9 *“There are fundamental differences between an income funds and limited liability*
10 *corporations”¹⁰¹*

11 In my earlier evidence, I discussed a number of the technical differences between
12 income trusts and limited liability corporations. I was aware of the existence of
13 these differences in developing my evidence. My evidence was and continues to
14 be, that income funds with utility type assets are able to attract billions of dollars
15 of capital at rates of return dramatically below the after-tax rates sought by the
16 applicants.

17 In the case of the difference in the limitation of liability, I observed that this
18 difference would appear to increase the risk to investors. That would make the
19 attraction of the lower returns appear counter-intuitive. I also observed that the
20 impact of this difference may be moderated by the layering structure which in
21 many funds separates the trust from the operating assets. Organizationally, many
22 utility holding companies also have layered structures.¹⁰² While there are
23 differences in the documents used to create a trust or a limited liability
24 corporation, both forms of organization allow great flexibility in the number of
25 securities to be issued¹⁰³ and the scope of operations which the organization may

¹⁰⁰ In November, Terasen had undertaken a private placement with an institution to raise \$100 million in equity.

¹⁰¹ See Section 2.1 of the ATCO Evidence on the Fair Return on Equity on page 8 of 11 lines 17-18.

¹⁰² See CAL-ATCO-20 in which ATCO acknowledges that both income funds and utility holding companies hold securities rather than physical assets.

¹⁰³ Please compare Section 2.1 of the ATCO Evidence on the Fair Return on Equity on page 9 of 11 lines 2-3 to CAL-ATCO-17.

1 choose to undertake.¹⁰⁴ I do not see these technical differences as invalidating my
2 observations.

3 The distributions of an income fund and a limited liability corporation have
4 different characterization, but are both dependant on the earnings, and the
5 distribution policy chosen by the entity.¹⁰⁵ While much has been made out of the
6 different characterization of the distribution at the parent level, the recognition
7 that assets of income funds and limited liability corporations may be held by
8 taxable corporations moderates the difference. In CAL-ATCO-21, ATCO
9 confirmed that corporate subsidiaries of income funds are without any special tax
10 status, and like the subsidiaries of utility holding companies are liable to the
11 normal rules of taxation of corporations.

12 Another of the purported differences between income funds and utilities noted by
13 one of the applicants is the relative importance of the distribution amount as a
14 value benchmark.¹⁰⁶ Distributions are important to the valuation of both income
15 funds and utilities. The dividends that might be paid by a stand-alone utility and
16 the distributions of an income fund that might own an interest in the same
17 physical asset will each depend in part on the earnings derived from the utility
18 asset. The differences in characterization of distributions have been reviewed in
19 my evidence in the earlier proceedings.¹⁰⁷ While in this proceeding, an applicant
20 appears to suggest that distributions are more important to the valuation of income
21 funds than for utilities, in other proceedings, the applicants have introduced
22 research reports which were provided to show the significant importance of utility

¹⁰⁴ Please compare Section 2.1 of the ATCO Evidence on the Fair Return on Equity on page 9 of 11 lines 5-6 to CAL-ATCO-19.

¹⁰⁵ See the discussion at page 632 line 9 and continuing to page 634 line 14 in the ATCO Electric proceeding in respect of utilities and at page 647 lines 6-15 for the comparative comment with respect to income funds. See also the discussion at page 1572 line 11 and continuing to page 1573 line 14 in the ATCO Electric proceeding.

¹⁰⁶ Please compare Section 2.1 of the ATCO Evidence on the Fair Return on Equity on page 10 of 11 lines 11-16 to CAL-ATCO-26 (f and e) and CAL-ATCO-24 (b).

¹⁰⁷ Among other references see page 14 and 15 of my ATCO Pipelines Evidence where I identify the distributions as income or a partial return of capital. For an example of an incorrect characterization of the distribution see the ATCO Gas Transcript page 1168 lines 5 – 19: where an ATCO witness suggested that

1 dividends in the valuation of the utility shares in views of certain analysts.¹⁰⁸
2 Analysts covering both groups of entities calculate distribution yields¹⁰⁹ and
3 attempt to anticipate factors that may indicate changes to those distributions.

4 As a further cautionary note, in the comparison of income funds and utilities, it is
5 critical when discussing percentages to be aware of the comparable units. Income
6 funds in my sample, earned returns in the most recently reported 12 months
7 ranging from a loss of 4.5% to a high of 6.9% while the NEB and BCUC formulas
8 allow returns in the 9% range, and, the applicants are seeking returns in the 10.5%
9 to 11.5% range. Income funds distribute amounts in the 9% range before personal
10 taxes which may be taxed at rates between those applying to full income or capital
11 gains, while utilities pay dividends in the 3 to 5% range which are entitled to
12 dividend tax credit treatment.¹¹⁰ Income funds and utility shares appreciate or
13 decline in value with respect to the current market conditions, and it is possible to
14 calculate the capital appreciation or total return earned for either security for
15 varying time periods. Some calculations are not particularly meaningful in the
16 comparative analysis. One such calculation is the calculation of the percentage of
17 the income fund distribution amount to average equity.¹¹¹ As investors must pay
18 the market price and these funds are trading at a premium to book value, while
19 novel, the calculation does not provide an appropriate comparison to utility after-
20 tax earnings or dividend yield. In Mr. Lackenbauer's evidence at page 14 he
21 refers to cash returns for income funds in the 8% to 10% range. I believe this to
22 be a reference to the cash distribution before personal taxes and not directly
23 comparable to the 10.5% to 11.5% after-tax rate of return on equity requested by
24 the applicants. Similarly, his reference to minimum annual returns in the 10% to

"This is the distribution to the customer, or to the investor, rather. So it is not a 9 percent – that 9 percent is not equivalent to a rate of return. It's equivalent to the dividend yield."

¹⁰⁸ The views of certain analysts of the importance of dividend yields in determining the value of utility shares can be seen in the CAPP-NGTL-154 research report on BC Gas (now Terasen).

¹⁰⁹ See CAL-ATCO-24 (d & e).

¹¹⁰ In CAPP-NGTL-80 (d) NGTL notes that the dividend yield "is but one factor which provides the return investors" may hope for, and does not in and of itself indicate the market required after-tax return on equity.

¹¹¹ See the table in Section 2.1 of the ATCO Evidence on the Fair Return on Equity on page 11 of 11.

1 12% range appears to incorporate the cash distribution and 2% capital
2 appreciation. I believe this may be a reference to an amount before personal taxes
3 and not directly comparable to the 10.5% to 11.5% after-tax rate of return on
4 equity requested by the applicants.

5 *“The returns on equity earned by an income fund are not relevant to an investor*
6 *in income funds”¹¹²*

7 I fundamentally disagree with this proposition. I observed earlier that cash flow is
8 based on earnings plus the depreciation. The yield for a utility will depend on the
9 earnings and the company dividend policy. The same rules of finance apply to
10 income funds. To have something more than depreciation to distribute, income
11 funds must have earnings. It is preposterous to suggest that investors would fund
12 an organization when the best return they could expect is to get their money back
13 over time. The loss in net present value would be staggering. Earnings are highly
14 relevant to investors in income funds.

15 In some of the earlier proceedings applicants undertook “informal surveys” of
16 research reports to show that certain valuation measures were not included in
17 some of the publications. The August 2003 *BMO Nesbitt Burns Monthly Trust*
18 *Report* provides a host of statistics including returns on equity, earnings multiples,
19 prices to book, debt to cash flow, interest coverage for the various funds upon
20 which it reports. Recognizing that the income fund yield is dependant on its
21 price, earnings, depreciation and distribution policy, I found it interesting that one
22 of the elements used to recommend the various income funds was a calculation of
23 the distribution yield compared to the forecast 10-year Canada yield plus a spread
24 ranging from 250 to 485 basis points, in the case of the funds I used in my
25 sample. The low level of income fund earnings and the low pre-tax spreads are in
26 my view highly indicative that the higher level of return sought by the applicants
27 is in excess of the current market requirement.

¹¹² See Section 2.1 of the ATCO Evidence on the Fair Return on Equity on page 8 of 11 lines 17-18.

1 **Q.23 Are income funds in the electrical generation and pipeline business of**
2 **comparable business and financial risk to the applicants?**

3 A My evidence related to income funds is important since it provides real world data
4 on a segment which has been eminently successful in attracting capital. The test
5 of a reasonable or fair return in the *Hope Natural Gas* case quoted above is a little
6 more complex than just attracting capital. That test refers to “corresponding
7 risks” and raises the question of whether the business risks faced by these income
8 funds are in any way comparable with the risks faced by the Applicant. Mr.
9 Johnson will be addressing the relative risks of various classes of regulated
10 enterprise in his evidence. I do not intend to repeat his analysis here.

11 In my evidence¹¹³ in the ATCO Pipelines proceeding I noted that the business risk
12 of ATCO Pipelines has been considered in prior hearings and in recognition of
13 these risks ATCO Pipelines South was awarded a 45.5% equity layer which was
14 similar to that determined as appropriate in U99099 for electrical generation
15 assets.¹¹⁴

16 Several of the income funds and trusts I chose as examples had investments in the
17 electrical generation business and one was in the pipeline business, both of which
18 are lines of endeavor that will be familiar to this Board. Investors, or their
19 advisors, are aware of the cornucopia of investment alternatives. They will be
20 aware and will weigh choices between enterprises in similar industries. Investors
21 have the choice to choose Pembina Income Fund¹¹⁵ or TransCanada to obtain
22 varying degrees of exposure to the range of pipeline based investments and the
23 risk that management will unwisely diversify into unprofitable lines of endeavor.
24 Investors may chose Northland Power or Canadian Utilities for varying degrees of
25 exposure to the range of electric investments. When we examine the trusts’
26 market to book ratios we see an average of approximately 1.3 times for firms

¹¹³ See CAL-ATCO-14 (d).

¹¹⁴ See the discussion at page 256 related to EPGI, and TransAlta Genco at page 333 and 337.

¹¹⁵ One of the Pembina Income Fund assets, Alberta Oil Sands Pipeline, earns a return determined with reference to the NEB formula under a contract to 2035. See note 3 to the Alberta Oil Sands Pipeline financial statements filed as part of the Pembina Pipeline Income Fund 2001 Annual Information Form.

1 earning an return of approximately 6% and distributing to their investors a
2 payment before personal taxes of approximately 9%. When we examine the
3 market to book ratios of companies with substantial regulated utility investments,
4 upon which they are earning formula based after-tax returns of approximately
5 10% we find market to book ratios approaching 2 times.

6 I have already expressed the view that simply comparing the percentage of debt to
7 total capitalization of an income fund and a utility in a similar industry is
8 superficial, and discussed the effect of an income fund acquiring assets at a
9 premium on its ability to service any debt it might issue. The apparent financial
10 risk of each of the applicants relative to my sample of income funds will differ
11 due to the differences in the level of debt¹¹⁶ and preferred instruments in their
12 respective capital structures, but is increased from the relative levels suggested
13 solely by the specific levels of debt by two policies particular to income funds.
14 The first of these income fund policies is the policy to pay out a high level of
15 distributions, and the second is to incur debt to make distributions when the
16 distributable cash would otherwise be inadequate to maintain the anticipated
17 level. As a result of these policies, income funds are generally returning capital to
18 their investors and therefore, relative to utility equities offer investors low to
19 moderate growth and capital appreciation. The table below shows the 2002 price
20 change and the recent capital appreciation (if any) for each of the funds since their
21 inception.

Income Fund Price Appreciation	31/12/01	31/12/02	Change	Change	Since Inception ¹¹⁷
Algonquin Power Income Fund	\$ 10.40	\$ 9.28	\$ (1.12)	-10.8%	-0.5%
Clean Power Income Fund	\$ 10.31	\$ 9.50	\$ (0.81)	-7.9%	-2.8%
Great Lakes Hydro Income	\$ 13.40	\$ 15.23	\$ 1.83	13.7%	11.7%

¹¹⁶ The table in Schedule 4 provides the long-term obligations and unitholders' equity of the sample funds, as at June 30, 2003.

¹¹⁷ The calculation ignores the affect of interest savings on any instalment payment, and is based on a mid day price on August 28, 2003. The dates of inception and on which any instalments might have been due are set out in the reply to AP-CAL-17 in the ATCO Pipelines proceeding. See also CAPP-NGTL-161 (1).

Fund					
Northland Power Income Fund	\$ 11.60	\$ 11.00	\$ (0.60)	-5.2%	2.2%
Pembina Pipeline Income Fund	\$ 11.31	\$ 10.90	\$ (0.41)	-3.6%	3.2%
			Average	-2.8%	2.7%

1 **Q.24 Will you comment on the recent reversal of the major gains earned by**
2 **technology stocks, the second aspect which you considered relevant to the**
3 **issue of required return on equity capital?**

4 A. The second aspect that I thought relevant to the issue of required returns on equity
5 capital in recent years was the reversal of the major gains earned by technology
6 stocks in the last few years. In short, the returns on information technology stocks
7 viewed from most dates since 1999 have been dismal, although in the last few
8 months the sector has improved from its lows. In October 2000, the TSX
9 information technology index hit levels in excess of 110. In October 2002, the
10 same index fell to levels below 10. Nortel may be the most famous Canadian
11 example of the irrational exuberance that some saw gripping the capital markets.
12 In July 2000, its shares were trading as high as \$123 and in October 2002 they
13 had fallen to prices as low as \$0.69. In August 2000, Nortel represented 34.59%
14 of the TSE 300 index but by September 2002, it had fallen dramatically and
15 represented only 0.53% of the S&P/TSX composite index. Since that time, Nortel
16 has recovered and at the end of June 2003 represented approximately 2.15% of
17 the index.

18 I believe that the poor returns on shares of companies in the technology sector is a
19 factor which makes the returns available under a formula similar to the NEB
20 adjustment mechanism quite attractive in the current market. The billions of
21 dollars attracted to the units of the various income funds and trusts, some of
22 which, as shown in the preceding tables, are not achieving the returns available
23 under formula similar to the NEB adjustment mechanism, confirms this view.

1 **Q.25 Can you comment on the implications of the purchase of several utilities at**
2 **material premiums to the underlying book value?**

3 A In recent months there have been a number of acquisitions of companies which
4 own regulated utilities and regulated utility assets. Many of these acquisitions
5 have taken place at substantial premiums to the trading market of the shares of the
6 utility owners or the rate base of the utility assets. I believe paying a substantial
7 premium for rate base assets indicates that the return on those assets is in excess
8 of the then market requirement.

9 In March 2002, Duke acquired Westcoast committing approximately U.S. \$8.5
10 billion.¹¹⁸ Duke's offer was a cash and share offer valued at approximately \$43.80
11 per Westcoast share. The market for Westcoast's shares had been approximately
12 \$36 prior to the offer. Westcoast's major assets included, in addition to the NEB
13 regulated utilities subject to the NEB formula, interests in the Alliance Pipeline,
14 Union Gas and Centra Gas, and a number of power generation projects. I was
15 interested in comparing the proposition that the current market conditions justified
16 a range of after-tax returns equity in the 10.5% to 11.5% range, with the action by
17 Duke in committing U.S. \$8.5 billion in the purchase of Westcoast. Since
18 Westcoast, in the absence of a negotiated settlement involving a higher or
19 incentive rate of return, is saddled with the apparently inadequate NEB
20 adjustment mechanism and ROE, I could not believe that the synergies and
21 returns on other aspects of their business outweigh the comparatively¹¹⁹ low rate
22 of return on Westcoast's NEB regulated pipeline investments, which Duke
23 acquired as part of the purchase.

24 In November 2002, Terasen acquired a one-third interest in the Express Pipeline
25 for consideration of approximately \$200 million¹²⁰. In its November 20, 2002

¹¹⁸ The consideration was originally set out in a September 20, 2001 press release. Duke has subsequently divested of certain of the assets acquired including interests in the Alliance Pipeline and Foothills Pipe Lines.

¹¹⁹ For clarity, the intended comparison is between the NEB rate and the rate sought by the various applicants in this proceeding.

¹²⁰ The November 19, 2002, press release reported "The consortium is paying approximately Can \$1,175 million for the Express Pipeline System, including assumed debt of approximately Can \$582 million". See

1 conference call, the officers of Terasen declined to provide a rate of return on
2 equity when asked to do so by one analyst. They noted that they anticipated
3 earning \$12 million in 2003 from the investment, operating management fees and
4 certain tax benefits which were described as “significant”. As such, the return on
5 equity for 2003 appears to be approximately 6% or less.¹²¹ This return is based on
6 the full through-put volumes which were supported by a commitment of the
7 vendor to continue to ship volumes above committed capacity for a minimum of
8 two years. In support of the acquisition, Terasen offered 5.3 million shares to the
9 market at a price of \$38.00.¹²²

10 In our own province, we have seen the recent AltaLink acquisition of TransAlta
11 distribution assets¹²³. In that transaction, AltaLink paid a premium of
12 approximately \$200 million for rate base assets of approximately \$644 million.¹²⁴
13 While we do not have an adjustment mechanism determining the return on equity
14 for Alberta utilities, AltaLink must have been aware of the recent public record of
15 decisions of the AEUB setting returns on equity¹²⁵. AltaLink is in the process of
16 applying for leave to appeal of the AEUB approval of its rates.¹²⁶

17 In May 2003, TransCanada announced the acquisition of the various interests in
18 the Foothills for \$105 million plus assumption of debt. The press release did not
19 provide a market to book calculation. In my earlier evidence I had used
20 information from public sources to and estimated the market price paid would be

also AP-CAL-18 in the ATCO Pipelines proceeding in which Mr. McCormick replies to a request for a calculation of the premium to book value of the Express transaction.

¹²¹ See CAPP-NGTL 154 attachment in which one analyst suggests that the “transaction was priced on the “high side” of fair value.”

¹²² On December 3, 2002, BC Gas (now Terasen) filed a prospectus for an issue of \$201.4 million of common shares. They had also undertaken a private placement of approximately \$100 million of common shares on the same terms to assist in the financing of the Express pipeline purchase. In November 2001, BC Gas filed a prospectus for \$188 million of Subscription Receipts for common shares.

¹²³ The transaction was announced in July 2001 and received regulatory approval in March 2002.

¹²⁴ In CAL-ALP-Evans-20 (c) Dr. Evans confirmed that the transaction took place at a “premium of approximately 30% above book value.”

¹²⁵ These decisions would include the 2000-9 Decision which determined a return on equity of 9.375%, and U99099 (see page 328) which approved a range from 9% to 9.5%. The DBRS Report on AltaLink (CAL-ALP.181(a) in the AltaLink proceeding) also assumed a 9.75% ROE for AltaLink.

¹²⁶ In Application No. 1279345, AltaLink has sought a return on equity of 10.75%. In Decision 2003-061 they were allowed an equity return of 9.4%.

1 approximately 1.65 times book.¹²⁷ On page 10 of 45 in its evidence, NGTL
2 indicates the market to book ratio of the purchase price was 1.6 times.¹²⁸ In each
3 of the years from 1996 to 2002, Foothills has achieved the NEB formula allowed
4 rates of return in that year.

5 In the conference call following its May 26, 2003 announcement of the
6 establishment of an Enbridge Income Fund to hold its 50% interest in the
7 Canadian portion of the Alliance pipeline and some assets in Saskatchewan,
8 Enbridge indicated that it anticipated that the enterprise value of the new trust
9 would be approximately \$850 million. In its June 30, 2003 results, Enbridge
10 indicated that the proceeds to it were \$905 million. The Enbridge Income Fund
11 has also raised additional debt. As part of this transaction, Enbridge recorded a
12 pretax gain of approximately \$240 million. The book value of these assets to
13 Enbridge included the premiums¹²⁹ paid to former owners as part of their
14 acquisition. The full benefit of this accretion will be realized in stages as
15 Enbridge undertakes additional sales of its interest.

16 These various acquisition and restructuring transactions, taking place at premiums
17 to book value, in my view are strong evidence of the generosity of the underlying
18 utility returns and make clear that capital is being attracted on the basis of lower
19 returns than those sought by the applicant.

20 **Part II**

21 **Q.26 What sort of formula would be best?**

22 A Dr. Booth has indicated in his evidence the rationale for the formula
23 recommendation.

¹²⁷ My estimate was based on the 2003 Annual Information Form of Westcoast which disclosed that Westcoast held an approximate 27 % interest in the average Foothills rate base, which was carried at December 31, 2002 at a value of approximately \$63.5 million.

¹²⁸ In CAPP-NGTL-154 (b) the premium to book for this transaction is identified as “n/a”.

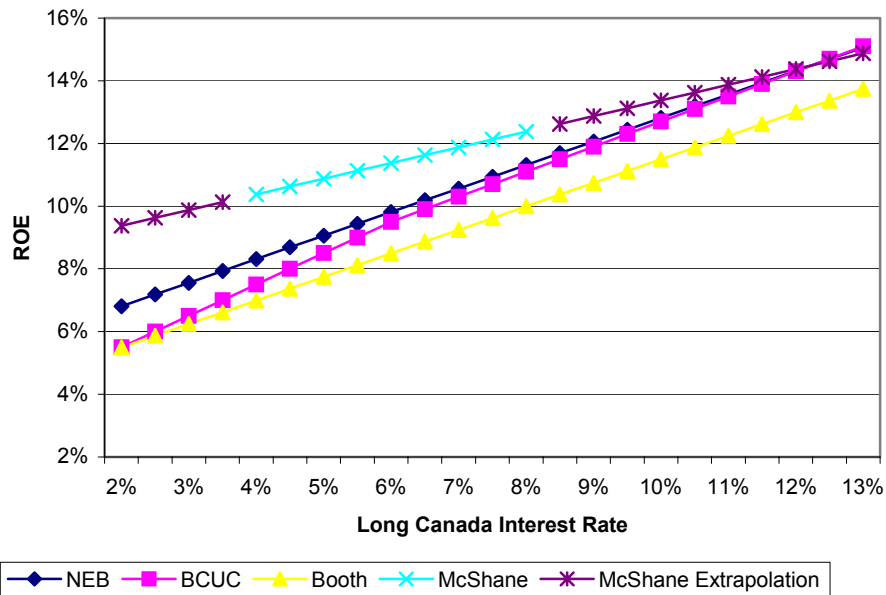
¹²⁹ The March 20, 2003, Enbridge press release indicated a purchase of an 11.8% interest in Alliance at a price of approximately 1.1 times book. Enbridge previously had acquired interests from Williams and El Paso described in press releases dated September 23 and November 22, 2002.

1 From the capital markets perspective, the formula needs to be effective. It must
2 approximate the market required return on equity. While not absolutely essential,
3 it would be of great benefit if it were understandable to laymen. Finally, it would
4 be beneficial if it were substantially similar to those formulas now used for
5 similar purposes in one of the Canadian jurisdictions with a rate of return formula.

6 **Q.27 What sorts of formulas have been recommended?**

7 A There is quite a range of recommendations. Dr. Booth and Dr. Evans have both
8 suggested formulas based on the NEB model, although each of them have
9 suggested adjustments in differing directions. Dr. Neri and Dr. Kolbe have
10 recommended formulas based on changes in utility bond yields. Ms. McShane's
11 formula is based on changes in Canada bond yields but has a materially different
12 starting point and adjustment factor than that used in the NEB formula.

13 Each of these experts recommending formulas have also recommended some
14 range of circumstances or interest rates within which their formula would operate.
15 Although, clearly beyond the ranges recommended by the various experts, in the
16 table below I have extended some of their formula results over the range of 2% to
17 13% interest rate for long Canada bonds and compared them to the return which
18 would be the result under the BCUC and NEB formulas. As Dr. Evans
19 recommended slightly different equity returns for some of his companies and a
20 postponement of the formula for two years, I did not attempt to extend his
21 recommendation in the graph below. As Drs. Neri and Kolbe recommend
22 formulas based on utility bond yields I was unable to tie their recommendations to
23 changes in the long Canada interest rate.



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As the graph above shows, Dr. Booth’s recommendation results in a return that is about 130 basis points below that of the NEB formula. Compared to the BCUC benchmark return, Dr. Booth’s return would be equal to the BCUC rate based on an interest rate of 2% but would be lower for returns above that rate. Within his recommended range of 2.5% to 8.5% his return is slightly below that of the BCUC formula varying from about 13 basis points to 113 basis points over that range. At the low end of her range of 4% to 8%, Ms. McShane is approximately 207 basis points above the NEB formula return, but this declines to approximately 107 basis points at the top end of her range.

Looking at the extended range, at 2% Dr. Booth’s formula and the BCUC formula would allow an equity risk premium of approximately 3.5%%, while the NEB formula would generate approximately 4.81%. Ms. McShane’s formula, extended beyond its recommended range to the 2% interest rate, would provide an equity return of approximately 9.375% and an equity risk premium of 7.375%.¹³⁰

Q.28 Do you have a view as to the advisability of the short sunset provisions proposed by some of the applicants?

1 A. I think the short sunset provisions proposed by some of the applicants are a bad
2 idea and will, if implemented, reduce the benefit of increased certainty which
3 would arise in their absence.

4 The short sunset provisions proposed could operate to change this generic
5 proceeding into a more typical rate of return hearing covering a relatively short
6 period.

7 The proponents of short sunset provisions overlook the fact that this Board also
8 has the benefit of having seen the market reaction to the various formulas which
9 have been employed by other regulators for nearly 10 years and have operated
10 through interest rate environments for long-term Canada bonds ranging from the
11 approximately 4.75% to 9.5%.¹³¹ I am of the opinion that we should capitalize on
12 this knowledge base and establish a formula to operate until a complaint is
13 received, predicated, as the NEB did, on the expectation that there would not need
14 to be a review for several years.¹³²

15 I favor an unfettered formula. While the NEB and BCUC did not have the benefit
16 of our recent experience with low interest rates at the time they established their
17 formulas, even they were not as tightly fettered, as several of the applicants'
18 experts would propose to fetter a formula established by this Board. In the RH-2-
19 94 Decision, the NEB provided an illustrative table covering the results over a
20 range of interest rate forecasts from 7% to 13%, a range of 600 basis points which
21 is the same range¹³³ as Dr. Booth is currently recommending. Several of the
22 applicants have suggested that changes in interest rates as little as 200 basis points

¹³⁰ See CG-AUI/AE/AG/AP-6, in which Ms. McShane suggested that her return would intercept the zero interest rate and spread at 7.87%.

¹³¹ Bank of Canada series B114017 was shown as 4.74% on June 13, 2003 and 9.46% on November 7 1994.

¹³² At page 32 of the RH-2-94 Decision the NEB observed that it did not expect to reassess the rate of return on common equity for at least three years. It also produced a table showing the various rates of return for interest rates from 7% to 13%.

¹³³ For clarity, Dr. Booth's range spans the interest rate environment from 2.5% to 8.5%, a range of 600 basis points where the NEB's 600 basis point example surrounded its then current interest rate environment.

1 or less would trigger a review.¹³⁴ We know that the NEB formula has been applied
2 at forecast rates as low as 5.63%¹³⁵ beyond the interest rate expectation at the time
3 of the RH-2-94 Decision. As such, I would recommend that we should take
4 advantage of the greater experience of the performance of these formulas over a
5 broad range of interest rates, which is available to this Board but was not
6 available to either of the NEB and BCUC.

7 Specifically, in this proceeding, Dr. Evans has suggested a fixed return for his
8 clients for two years and thereafter a formula to operate for years to 2006-2008
9 with sunset provisions effectively providing a decision for “five years or some
10 shorter period”¹³⁶. In the absence of such a sunset provision, Dr. Evans suggests
11 that the common equity ratio would need to be increased by 2.5% per company.¹³⁷
12 Interestingly enough, the justification for the increased equity layer is not risk-
13 related that in the absence of such a sunset provision the companies would be
14 exposed to a potential imbalance of returns, but to “the need” to make the “equity
15 ratios more nearly comport with those of their non-Canadian counterparts”.¹³⁸

16 Ms McShane has suggested a three part sunset provision that would be triggered
17 on the earlier of (a) 3 years, (b) a change of interest rates outside of the narrow
18 bounds of 4% to 8%,¹³⁹ and finally, (c) if “the utility debenture spread over long

¹³⁴ See page 52 of 52 in the Capital Structure and Return on Equity Evidence of Dr. Neri. See also the reference to a range of long Canada yields of 4% to 8% at page 47 of 48 of the Prepared Testimony on Fair Return on Equity by Kathleen C. McShane. With the benchmark long Canada bond currently trading at a yield of approximately 5.40% the floor rate of 4.0% only provides a lower range of 140 basis points off current levels.

¹³⁵ 5.63% was the forecast Canada yield used in calculating the 2002 ROE.

¹³⁶ See pages 3 and 37 of Dr. Evans' Evidence July 2003 Re Generic Cost of Capital Proceeding. The June 10, 1994 BCUC Decision notes at page 38 that Dr. Evans would have limited the formula to a two year time period, or up to 5 years if coupled with a complaint procedure.

¹³⁷ Pages 3 and 15 of Dr. Evans' Evidence July 2003 Re Generic Cost of Capital Proceeding.

¹³⁸ See CAL-ALP-Evans-2 (j).

¹³⁹ Section 2.1 ATCO Pipelines Generic Cost of Capital Proceeding page 2 lines 12-15. See also the Prepared Testimony on Fair Return on Equity for a Benchmark Utility by Ms. McShane at page 5 of 48 lines 19-22. The June 10, 1994 BCUC Decision notes at page 37 that Ms. McShane would have limited the formula to a band of 100 basis points down and 200 basis points up from the then current levels.

1 Canadas ever exceeds 50% of the equity risk premium”.¹⁴⁰ The sum of these three
2 tests seems to make it likely that her formula would be of short duration.

3 Ms. McShane discusses these complex sunset provisions in pages 47 and 48 of
4 her prepared testimony. There is no specific rationale for the 3-year review
5 discussed in lines 15 to 17 on page 47 of 48, although Ms. McShane may be
6 referring to the comment of the NEB at page 32 of the RH-2-94 decision which
7 referred to a 3-year period.¹⁴¹ The 4% to 8% Canada bond yield limitation is
8 premised upon the possibility of an altered relationship between long Canadas and
9 the utility cost of equity. The lower 4% limit related to lack of recent experience
10 with low bond yields. The upper 8% limit related in part to inflation concerns.
11 The final test, the relationship between Canada and A-rated utility spreads relies
12 on the premise that there is an implied relationship between utility-Canada bond
13 spreads and the utility equity risk premium. In my view, this final test suffers
14 from all the additional problems and complexities of having to create an A-rated
15 utility index which were discussed in my evidence in the ATCO Gas, Electric and
16 Pipelines proceedings.¹⁴²

17 Part of the reason that Ms. McShane may favour a more narrow range of
18 applicability is that with the 50% adjustment factor, the handsome returns¹⁴³
19 which her formula generates at lower interest rates are eroded at higher rates. As
20 such, the return under her formula, if extended beyond the 8% upper bound,
21 would drop below that allowed under the NEB formula at interest rates slightly
22 above 12 %.

¹⁴⁰ Section 2.1 ATCO Pipelines Generic Cost of Capital Proceeding page 2 lines 16-17. See also the Prepared Testimony on Fair Return on Equity for a Benchmark Utility by Ms. McShane at page 5 of 48 lines 23-24.

¹⁴¹ Page 32 of the RH-2-94 Decision “The Board is not setting a limit on the life of the mechanism and it does not expect to reassess the rate of return on common equity in a formal hearing for at least three years.” At page 29 of that decision, the author appears to indicate that she and Dr. Sherwin were of the view that a formula should “operate for no more than three to five years before a review.”

¹⁴² See the Prepared Testimony on Fair Return on Equity for a Benchmark Utility by Ms. McShane at page 48 of 48 lines 6-11. By way of example, see pages 30 to 36 in my ATCO Pipelines Evidence and pages 25 to 29 in my ATCO Electric Evidence.

¹⁴³ At 4% forecast interest rates, Ms. McShane’s formula would generate an allowed ROE of 10.375% while the NEB formula would generate an allowed ROE of approximately 8.3%.

1 The final aspect of Ms. McShane's sunset provision, the comparison of Canada-
2 utility spreads to the risk premium, has the greatest problem in logic. In her
3 evidence she notes the lack of "pure-play Canadian utilities".¹⁴⁴ With the lack of
4 pure play utilities, there would also be few pure-play utility bonds¹⁴⁵. As such,
5 Ms. McShane is proposing to trigger a review of the stand-alone equity ROE
6 based on the market reaction to the changes in asset mix of the issuing company
7 or unfortunate results of the unregulated enterprises which may be found in the
8 utility holding company. No doubt there will be as many problems in crafting an
9 "agreed-upon" index with reasonable longevity and applicability as there are in
10 reaching agreement as to the best adjustment mechanism. In each of the ATCO
11 ROE proceedings the then applicant presented a table of "A-rated" utilities bond
12 yields.¹⁴⁶ In each of those proceedings, there was some degree of controversy as
13 to whether certain issuers should be included in the group, and as to the range of
14 bonds that would be most representative.

15 Dr. Kolbe also favors a near term review, after no more than 2 years.¹⁴⁷ A 2-year
16 review clearly reduces this exercise to the status of a normal hearing and deprives
17 us of much of the certainty benefit. He has also suggested that the initial review
18 be followed by regular risk-return reviews at 2 or 3-year intervals. As such, the
19 formula would be little more than a guideline in a series of regularly scheduled
20 cost of capital hearings fully eliminating the cost saving and certainty advantages
21 which might have arisen from a formula expressly intended to last for a period of
22 years.

¹⁴⁴ See the Prepared Testimony on Fair Return on Equity for a Benchmark Utility by Ms. McShane at page 35 of 48 line 15. See also Dr. Neri in CAR-EPC-1, and Dr. Kolbe in his Written Evidence at page 6 line 5.

¹⁴⁵ If one were to argue that the NGTL bonds might be considered a pure play utility bond, one would require an understanding of whether it had any material unregulated activities. Disclosure related to the activities of a limited partnership was restricted owing to its "commercially proprietary nature". See CAPP-NGTL-09 (f).

¹⁴⁶ By way of example see page 27-3 of the ATCO Electric application and CAL-AG-006 in the ATCO Gas Proceeding.

¹⁴⁷ Written Evidence of Nova Gas Transmission Ltd., July 2003, page 44 of 45 lines 10-15. See also, page 14 line 4 of the Written Evidence of A. Lawrence Kolbe. By way of comparison both EPCOR Transmission and ATCO Electric recently filed for 3-year test periods.

1 Dr. Neri also has included a number of conditions in his recommendations, which
2 would make the formula that he recommends something less than a multi-
3 company 3-year rate of return hearing. He proposes that his formula “be
4 authorized for an initial period of not more than three years”.¹⁴⁸ Secondly, if “**any**
5 utility in the Province suffers a bond rating downgrade, the Board should
6 automatically set aside the formula and initiate a review of capital market
7 conditions” (emphasis added). Dr. Neri also suggests that an increase, but not a
8 decrease, in the yield of long-term bonds of 200 basis points should also trigger a
9 formula review.

10 Without the operating experience that is available to this Board the BCUC
11 originally invoked its new formula for the 1995 year. The BCUC also noted that
12 if the mechanism was to perform favorably, it would extend its operation “for a
13 further one or two years”. As we know, with some minor tinkering¹⁴⁹ relating to
14 rounding, a floor, and the period in October in which bond data would be
15 gathered, the formula still operates. In considering the arguments in 1994, the
16 BCUC rejected a suggestion that a decline of 100 basis points or an increase of
17 200 basis points would result in abandonment of the formula.¹⁵⁰

18 With all the experience the financial markets have had with formulas of this type,
19 I believe the Board should reject these short sunset provisions.

20 **Q.29 Will an adjustment mechanism work well in any circumstance?**

21 A Any system created by human beings suffers from limitations, and as such, there
22 may develop in the future a confluence of events in which the current adjustment
23 mechanisms used by the NEB and the BCUC and one that may be developed by
24 this Board would not provide an adequate return for a regulated company.

25 However, it seems clear to me that these adjustment mechanisms have performed
26 well for a number of years. TransCanada has been able to access the capital

¹⁴⁸ See page 51 of 52 in the Evidence of Dr. Neri.

¹⁴⁹ See the BCUC August 29, 1999 Decision Return on Common Equity for a Benchmark Utility. See also Order G-49-97 which established that the mechanism would be used when the forecast long-term Canada bond rate fell within the range of 6% to 12%.

1 markets on a reasonable basis.¹⁵¹ The high market to book ratio currently enjoyed
2 by TransCanada and Terasen (formerly BC Gas) shareholders provide tangible
3 support for the view that these formulas, which generate lower allowed returns
4 than have been sought by any of the applicants, are, if anything, generous.

5 **Q.30 Are you opposed to a fixed review period?**

6 A. No, not at all. I just don't think we have a very good chance of identifying "the"
7 one time period for a review that is better than any other.

8 As I mentioned earlier, the ability to predict the future with any degree of
9 accuracy is reduced as the term of the forecast becomes more remote. While very
10 unlikely, the confluence of events problematic to the proper functioning of a new
11 formula could arrive in a matter of months. That confluence of events might not
12 occur ever, or it might occur shortly after whatever date might be selected from
13 among the various suggestions of the other experts who have recommended some
14 fixed sunset provision.

15 I am confident that if the Board adopts a variation of the NEB style of formula
16 that if the formula no longer operates well in the future market conditions, there
17 will develop an awareness among all parties that the matter must be reviewed.¹⁵²

18 **Q.31 Do you agree that since the companies generally opposed the adoption of a**
19 **standardized approach that a standardized approach is biased?**¹⁵³

20 A No. Another explanation for the difference in the attitude of the companies and
21 the intervenors is that costs of each of the hearings related to determining the cost
22 of capital are added to the hearing cost reserve and will ultimately be paid for by

¹⁵⁰ See page 40 of the June 10, 1994 BCUC Return on Common Equity Decision.

¹⁵¹ Among several comments on this topic, see CAPP-NGTL-13 (b)

¹⁵² I noted that the OEB observed "The rate of return formula should be reviewed as conditions arise that may call into question its validity. Parties to a proceeding may ask the Board to review the formula when they feel it is appropriate or the Board may do so on its own initiative. In either case it will be the Board's decision as to the time for a review. ... An adjustment to the utility-specific risk premiums should be done only when there is a clear indication that relative risks have changed. The Board believes that the capital structures should be reviewed only when there is a significant change in financial, business or corporate fundamentals."

¹⁵³ Page 8 lines 14-19 Written Evidence of A. Lawrence Kolbe.

1 the consumers or shippers. From the companies' point of view, when the costs of
2 the hearing are added into the revenue requirement it is somewhat of a "free
3 good". In addition, with the high market to book ratios, the market does not seem
4 to have shunned the securities of companies the returns for which are set by
5 formula.

6 **Q.32 Do you agree that "mistakes in a standard procedure will almost certainly**
7 **have a much longer and more severe impact than mistakes in an ordinary**
8 **rate of return proceeding"?**¹⁵⁴

9 A No, for three reasons. The existence of "a standard procedure" does not prevent
10 any or all of the utilities from seeking relief from the regulator if a decision has
11 given rise to unfortunate consequences.

12 Secondly, in Canada, we have had the benefit of having the AEUB continuing to
13 use the "ordinary rate of return" proceedings at the provincial level while the
14 NEB has used "a standard procedure" to fix the return on equity since the mid
15 1990s. In my view most of the rate of return decisions in Alberta had a fair
16 degree of symmetry with the prevailing NEB and BCUC rates. By way of
17 example, the table below takes the three decisions mentioned by Dr. Evans in his
18 AltaLink Evidence in the 1995 to 2001 period which were used to support his
19 Chart 4.3¹⁵⁵ and compares the result of those decisions to the result under the NEB
20 and BCUC formulas for the relevant year.

21

Year	Decision	AEUB ROE	NEB Formula Return	BCUC Benchmark
1995	U96001	11.50%	12.25%	12.00%
1996	U97065	11.25%	11.25%	11.00%
1999	U99099	9.25%	9.58%	9.25%
	Average	10.67%	11.03%	10.75%

22

23 The allowed returns under the decisions identified for those years by Dr. Evans
24 averaged 36 basis points lower than those allowed under the NEB formula. They

¹⁵⁴ Page 8 lines 14-19 Written Evidence of A. Lawrence Kolbe.

1 were approximately equal to the BCUC formula. Looking at these three
2 decisions, it is hard to see that the application of that formula had a “more severe
3 impact than ... in an ordinary rate of return proceeding.” In a similar vein, it is
4 hard to see that the application of the NEB formula which allowed 9.53% for
5 2002 and 9.79% for 2003 would be viewed as more severe than the recent
6 decision¹⁵⁶ allowing 9.4% in respect of AltaLink for the period May 2002 to April
7 2004.

8 My final reason for not being unduly concerned about the potential for enduring
9 harm from the establishment of a formula is that, practically speaking, many of
10 the companies enter into negotiated incentive arrangements even if regulated
11 under formulas. As such, the probability is reduced that a company would not be
12 entitled to some form of incentive at the time an issue with the formula
13 developed.

14 **Q.33 Do you agree that the use of a particular formula in another jurisdiction**
15 **should be treated as a count against its use in Alberta?**¹⁵⁷

16 A No. Applying that sort of reasoning, we might still be moving goods by travois,
17 since the Red River cart and the internal combustion engine were clearly
18 developed outside Alberta.

19 As a starting point in an analysis, I would have thought it best to consider what
20 information can be gleaned from those who have considered the question before.
21 I find it odd that one would think that the fact that a policy, concept or formula
22 has been tried in another jurisdiction should be treated as a “count against it”
23 without considering the result. It seems fruitless to spend energy rediscovering

¹⁵⁵ Chart 4.3 is found on page 20 of Dr. Evans’ AltaLink Evidence and the supporting references to the returns and decision numbers are found in the attachment to CAL-ALP-15 in the AltaLink proceeding.

¹⁵⁶ Decision 2003-081. Ms. McShane also provided a list of regulatory decisions and allowed returns in CAL-AP-4 in the ATCO Pipeline proceeding. In that response, Ms. McShane lists PUB or AEUB decisions for the years 1996, 1997 and 2001, the allowed equity returns and the NEB formula amount for those years were 11.25% (11.25% NEB 1996), 10.5% (10.67% NEB 1997) and 9.75% (9.61% NEB 2001) for a total difference of 3 basis points over those 3 decisions.

¹⁵⁷ Page 11 line 2 and page 33 line 18 Written Evidence of A. Lawrence Kolbe.

1 the wheel, and even odder to reject using the wheel because it was implemented
2 first in British Columbia or refined in the NEB offices in Calgary in 1994.

3 In my view, we can learn a good deal of information about how those various
4 formulas have performed in other jurisdictions. With that information, we may be
5 able to improve upon the formula. Clearly, if the application of the formula had
6 lead to the bankruptcy of the utilities in that jurisdiction, I would not wish to
7 follow that precedent. The experience with the formulas used in other
8 jurisdictions shows us that the prices of utility shares are strong approaching 2
9 times book value. We see that the market to book ratios have trended up since the
10 formulas were established¹⁵⁸. I believe that with the experience we have, we can
11 be confident that the existing formulas offer generous returns, and we can adjust
12 one of the existing formulas to incorporate the current market conditions which
13 were outside the experience and estimation of those who created them.

14 As I have mentioned elsewhere, the capital markets have had many years to
15 gather an understanding of the NEB and BCUC formulas. Introducing a formula
16 based on either of those models, even with some minor adjustments, will be
17 quickly understood.

18 **Q.34 Do you perceive a fixed capital structure and a formulaic determination of**
19 **ROE as an increased risk¹⁵⁹?**

20 No. Utilities under regulation face periodic rate cases, and as a result face the risk
21 that the allowed return and capital structure at each decision will vary from that
22 which the then market requires. As rate cases often cover periods of 2 or more
23 years,¹⁶⁰ there is, under the current system, the additional risk that the rate of

¹⁵⁸ See Schedule 22 in Dr. Booth's Evidence. The exceptions would be Pacific Northern Gas and Enbridge.

¹⁵⁹ Page 19 of Dr. Evans' Evidence July 2003 Re Generic Cost of Capital Proceeding. In CAL-ALP-Evans-2 (b) Dr. Evans confirms that no Canadian regulator has increased the equity layer to reflect this risk.

¹⁶⁰ ATCO Electric and EPCOR Transmission filed on the basis of a 3-year test period, 2003 through 2005. The record of the ATCO Gas application is filled with references to the fact that ATCO Gas North entered into a 5-year incentive arrangement, and was based on changes in business risk from the 1997/98 period. For many utilities, many years pass between rate cases. At the time of the ATCO Electric proceeding filing in 2002, the applicant had not had the equity risk premium determined since 1996. The NEB formula operated without major challenge from inception to 2001, a period of over 6 years.

1 return allowed for a multi-year period will become less representative of the
2 market requirements as time passes. As such, the adoption of a formula appears
3 to substitute the risk of an unfortunate multi-year decision with the risk that the
4 formula result may meander out of the range of appropriate returns over some
5 period of time.

6 In either situation, a party may bring an application to review a decision. In the
7 prior proceedings, utilities discussed with intervenors what the utilities perceived
8 to be the practical limitations on their rights under the current model to seek relief
9 if the fixed rate of return falls below the future requirement.¹⁶¹ The existence of a
10 formula may reduce the need for utilities to seek relief since the formula will
11 respond to some of the changes that may take place in the capital markets. It
12 would only be in the event that the formula inputs and adjustment factors did not
13 address the dynamics of the future market that an inappropriate return would
14 require a review application. In that event, the existence of a formula covering a
15 group of utilities may change the dynamics of the review application, since if the
16 changed circumstance is one of broad impact, the review application would likely
17 be made by several utilities each of which would have been affected by the
18 changed capital market condition. The suggestion that an annual formula based
19 reset of return places the utilities at greater risk appears counter-intuitive at best. I
20 believe that it is wrong.

21 Capital structures also tend to be fixed for multi-year periods in the typical rate
22 hearing. The assets of a utility tend to be long life assets and for that reason, once
23 the vehicle is capitalized in the absence of the major alteration of market
24 conditions or business risk, the capital structure should work for many years and
25 hopefully for the life of the assets. The concept that a review of capital structure
26 must take place every two or three years, or there is some material increase in the
27 utilities' risk, is puzzling since a number of Alberta based utilities have gone for

¹⁶¹ See the ATCO Gas Transcript beginning at page 2464 line 7 and continuing to page 2483 at line 10.

1 periods of 5 or more years between hearings.¹⁶² I do not perceive that there is any
2 material additional risk to the utilities from the introduction of a return adjustment
3 formula based upon the common equity capital structure approved by the Board.

4 In CAL-ALP-Evans-4 (i), Dr. Evans suggests that the NEB formula failed to
5 capture the various factors affecting the fair return, and notes that the inability of
6 a formula to capture all aspects of the fair return question unavoidably increases
7 the risks to which utilities are exposed. From the testimony of several experts it
8 appears clear that since the formulas were established none of the companies of
9 which the experts are aware have been unable to raise capital on reasonable terms.
10 What better proof of efficacy could be required? Whatever esoteric elements may
11 be lacking in the formula, the testimony of the experts is that the result was
12 effective.

13 **Q.35 Do you see an advantage in fixing a return for 2004 and 2005 and then**
14 **starting the formula¹⁶³ in 2006?**

15 No. The ability to predict the future with any degree of accuracy is reduced as the
16 term of the forecast becomes more remote. I have more confidence that a
17 properly crafted formula with the benefit of late 2004 data will come up with a
18 more accurate return on equity result for 2005 than we can given today's
19 information.

20 A properly crafted formula applied in late 2004 to determine the 2005 return has
21 the advantage of knowing the required risk free rates in late 2004. There is no
22 estimation error. Assuming that a decision can be had by December 2003 or early
23 2004, I would apply the formula in 2004. Only if there is to be an extensive
24 procedural delay would I recommend that the formula commence for 2005.

25 **Q.36 Do you see an advantage in basing the formula on A utility bond yields?¹⁶⁴**

¹⁶² Dr. Booth noted in the ATCO Gas Transcript at page 2611 that capital structure is an infrequent issue in other jurisdictions.

¹⁶³ Page 4 of Dr. Evans' Evidence July 2003 Re Generic Cost of Capital Proceeding.

¹⁶⁴ See the discussion beginning on page 49 of 52 in the Capital Structure and Return on Equity Evidence of Dr. Neri.

1 No. I see several disadvantages.

2 There are two major categories of issues related to the creation of a formula that
3 would use utility bond spreads rather than be based on Canada bond spreads. The
4 first category is the logical problem of adjusting the risk premium to reflect the
5 default risk which is already imbedded in the utility bond yields. The second
6 category is the practical problem of finding A utility bond yields which reflect
7 *only* the risk of the regulated entity.

8 With respect to the first category, the issue of how to adjust the risk premium to
9 reflect the default risk, which is already imbedded in the utility bond yields, will
10 no doubt be problematic. I see no evidence that the proponents of formulas based
11 on utility yields have adequately¹⁶⁵ incorporated the default risk into their
12 calculations to arrive at a premium to the A utility bond yield that has been
13 appropriately reduced from the premium which would apply to the formulas with
14 which we are familiar based on the risk free rate.

15 With respect to the second category, several of the utility experts have noted that
16 there are few pure play utilities.¹⁶⁶ As such, the changes in earnings, dividends¹⁶⁷
17 stock prices and bond spreads may be driven by matters ancillary to the regulated
18 business. Suggesting that we solve this problem by not linking the ROE to a
19 single company's bond, but rather to a "general corporate bond yield" does not
20 solve the problem, it only mutes the particular unregulated bond influences of one
21 company with the chorus of unregulated bond influences of a group of impure
22 utility bonds.¹⁶⁸

23 Dr. Neri suggested a novel¹⁶⁹ formula based on the projected A-rated utility bond
24 yield but noted that such forecasts were not readily available. To remedy this
25 problem, Dr. Neri proposed to use "the observed spreads between the A-rated

¹⁶⁵ In CAPP-NGTL-75 (b) we are told such an adjustment could be "accomplished automatically" but we are not told what the calculation would be.

¹⁶⁶ In CAR-EPC-1 Dr. Neri observed that there were "so few pure regulated utilities".

¹⁶⁷ See CG-EPC-6(d).

¹⁶⁸ See CAPP-NGTL-75 (a).

1 utility bond yield and the 10-year Government of Canada bond yields as reported
2 in a widely available publication”.¹⁷⁰ As the importance of A utility bond spreads
3 had been the subject of discussion in the recent ATCO proceedings, Calgary
4 attempted to obtain Dr. Neri’s views as to how the data on the yields of various
5 bonds could be synthesized into a meaningful index or formula. In response, Dr.
6 Neri observed that his proposal is based upon the necessary information “being
7 reported on a regular basis in a widely available financial publication”¹⁷¹. As I
8 have observed that the lists of bonds reported in the financial press changes over
9 time, with those words, Dr. Neri appears to have condemned his proposal to be
10 the captive of the changing space requirements of the editors of publications such
11 as the National Post or the Globe and Mail. He has also limited the available data
12 to a subset of the total number of potential utility issues. Calgary also asked Dr.
13 Neri to assist by calculating his A bond yield for several recent dates and to
14 explain his selection process for bonds having regard to symmetry of term, split
15 ratings and ratings mix, but Dr. Neri did not provide specific direction on how he
16 would implement his formula.

17 The difficulty in providing consistent data over time for A utility yields is that it
18 may require some judgment as to the bonds that may be included in the sample. It
19 is inadequate to say we would delegate this to some third party source of data
20 without direction as to the composition of data. If the question is to determine the
21 a 10-year A rated bond yield, those collecting the data need to know how to
22 address the paucity of bonds of a particular maturity, the permitted term variance,
23 and a host of other factors. Owing to the fact that in certain years, there would
24 not be utility maturities of each of A+, A, and A- rated bonds¹⁷², the authors of the

¹⁶⁹ In CG-EPC-17 (c), Dr. Neri advises that he is not aware of any regulator in Canada that uses an adjustment formula tied to the change in industrial bond spread.

¹⁷⁰ See page 50 in the Evidence of Dr. Neri and the reply to CG-EPC-17 (b).

¹⁷¹ See CAL-EPC-NERI-27 (f).

¹⁷² In CAL-EPC-NERI-27 (e), Dr. Neri notes that certain A utility yields are taken from the CIBC World Markets web site. It is not clear from his reference to the yields whether they are 10-year yields, or a larger portion of the index. An examination of the bonds used in the index shows that in certain years including 2014 and 2017, only 2 bonds are included in the list of bonds that make up the A utility index and in some years there are no maturities. With small numbers of bonds used to make up the index for a particular

1 A utility yield calculation would need to know what steps, if any, to take to avoid
2 apparent widening and narrowing of yields which could occur if the bonds used to
3 determine the A yield in one year were dominated by A+ rated bonds and the
4 prior or subsequent year were dominated by A- rated bonds. The chart attached to
5 CAPP-NGTL-13 (d) may provide a visual image of the issue. That chart appears
6 to show varying issuer spreads for bonds of undisclosed terms. In that chart
7 TCPL is shown at higher spreads than CU or Enbridge. Shifting from a year
8 dominated by CU maturities to a year dominated by TCPL maturities could
9 change the apparent cost of A rated debt used in such a calculation.

10 Dr. Kolbe also favors linking the corporate return to corporate bond rates rather
11 than government bond rates.¹⁷³ His ideal index would use the highest rated
12 corporate debt, but he notes that such an index is not available.¹⁷⁴ He suggests that
13 we adopt a “systematic procedure” but does not tell us what that procedure might
14 be.

15 In addition to all the logical and technical problems, we have the added difficulty
16 of educating the capital markets as to the improvements of this untried system
17 when the minor modification proposed to the NEB formula by Dr. Booth can be
18 grasped in an instant.

19 **Q.37 Do you see an advantage in setting aside the formula for *all* Alberta utilities**
20 **in the event that *any* utility in the Province suffers a bond rating**
21 **downgrade¹⁷⁵?**

22 No. In some ways, this trigger might be described as “the tail wagging the dog”,
23 for an action unrelated to the regulated business of even the smallest of the
24 Alberta utilities could trigger uncertainty for all of Alberta utilities.

maturity changes in the affairs of one of those two corporations can have sweeping effects on the apparent yield.

¹⁷³ Written Evidence of Nova Gas Transmission Ltd., July 2003, page 44 of 45 lines 10-15. See also, page 82 line 8 of the Written Evidence of A. Lawrence Kolbe.

¹⁷⁴ See page 83 lines 4 and 5 of the Written Evidence of A. Lawrence Kolbe.

¹⁷⁵ See page 4 of Dr. Evans’ Evidence July 2003 Re Generic Cost of Capital Proceeding.

1 With the history of corporate diversification triggering ratings changes, Dr. Neri's
2 suggestion that the downgrade of "any utility" could cause his formula to be set
3 aside before the initial term of three years is up, solely due to acquisitions and
4 other diversification of the businesses by the various utility holding companies
5 which are the rated entities. These actions may have nothing to do with the
6 financial position of the regulated entity.

7 I disagree with Dr. Neri's view that a future downgrade "implies that a formula
8 may have failed in some way."¹⁷⁶ Dr. Neri appears to have a one-dimensional
9 view of the causes of downgrades and his view in ignoring upgrades lacks
10 symmetry.¹⁷⁷ A downgrade may have nothing to do with the allowed equity return
11 or the regulated business.¹⁷⁸ A downgrade may arise as a result of an action by a
12 utility holding company,¹⁷⁹ an event affecting its unregulated businesses or as a
13 result of changes in the relative proportions of its regulated and unregulated
14 operations. Looking at AltaGas¹⁸⁰ as a case in point, in February 2002, DBRS
15 downgraded its medium term notes to BBB (low) from BBB commenting on the
16 acquisition of a PPA unrelated to the regulated portion of its business.¹⁸¹ Under
17 Dr. Neri's trigger, AltaGas' purchase of the PPA would have set aside the formula
18 for **all** Alberta utilities. In CAPP-NGTL-176 (h) Mr. Murphy observes that
19 Westcoast and Union Gas have been downgraded three times by S&P from A+ to
20 BBB+ since March 2002 "commensurate with the changes in Duke Energy's

¹⁷⁶ See CG-EPC-1 (a).

¹⁷⁷ See CAL-EPC-Neri-27 (o).

¹⁷⁸ In CAPP-NGTL-162 (f), Mr. Lackenbauer observed that TCPL's rating with DBRS decreased on the acquisition of Nova by TCPL.

¹⁷⁹ See CAL-EPC-15 (b) and CAL-EPC-Falconer-8 (a and c).

¹⁸⁰ The September 27, 2000 Altagas medium term note prospectus shows a CBRS credit rating of BBB+, and a DBRS rating of BBB in each case for the notes. The January 10, 2003 Altagas medium term note prospectus shows a S&P credit rating of BBB-, and a DBRS rating of BBB (low) in each case for the notes. The January 10, 2003 Altagas medium term note prospectus also shows a S&P long term corporate credit rating of BBB- with a negative outlook.

¹⁸¹ The phenomena of a downgrade of a utility as a result of a change unrelated to the regulated operation also appears to occur in the United States. Mr. Murphy noted at page 6 of 26 of his evidence that "Most of the downgrades that have occurred in the U.S. pipelines relate to the losses and liquidity impairments at their merchant energy businesses."

1 credit ratings.”¹⁸² The mischief and uncertainty that this trigger would create in
2 the affairs of all Alberta utilities would be quite serious. The issues related to
3 using a measure related to the affairs of a utility holding company must have been
4 known to Dr. Neri as he observed in CAR-EPC-1 that there were “so few pure
5 regulated utilities”.

6 **Q.38 Do you agree that “a higher equity risk premium” is indicated “under**
7 **current capital market conditions”?**¹⁸³

8 A If the increase contemplated is sufficiently large so as to take the return to 11.5%,
9 no, I do not. In the table which earlier presented the NEB formula returns and
10 resulting equity risk premium, there has been an increase in the equity risk
11 premium caused by changing interest rates between 1996 and 2003. I am of the
12 opinion that the NEB adjustment formula results in a rate of return on equity that
13 is generous in the context of the current market requirements. The table below
14 sets out the market to book ratios for TransCanada, and for comparison Canadian
15 Utilities Limited, calculated based on year end financial statements and the year
16 end share prices. Other than the 1999 data point for TransCanada, one cannot
17 help but observe the market to book ratios are well over one. The 1999 data point
18 for TransCanada was affected by, among other things, \$700 million in write
19 downs related to its unregulated investments and a cut in the dividend which was
20 announced on December 8, 1999.¹⁸⁴ In CAPP-NGTL-162 (f) Mr. Lackenbauer
21 observes that these events had an impact on the debt market, addressing “the

¹⁸² In that same reply, Mr. Murphy noted the upgrade of Westcoast by S&P on the acquisition. In Dr. Neri’s test, were Westcoast an Alberta utility governed by his recommended formula, while the first downgrade of Westcoast would have returned it to the rating which it had prior to the acquisition and upgrade, the downgrade would have triggered a review when the effect of the series of transactions was no net change. See CAL-EPC-Neri-27 (m).

¹⁸³ See lines 17-18, page 20 of 48 in the prepared testimony on Fair Return on Equity of Kathleen C. McShane,.

¹⁸⁴ See BR-NGTL-16 which discusses the dividend cut, CAPP-NGTL-13 (f) which refers to the asset dispositions, and CAPP-NGTL-78 (c) which lists the assets or businesses which were sold or considered as discontinued. The \$1.12 per share annualized rate that existed before the cut has yet to be restored. The current dividend rate is \$1.08, slightly below the pre-cut dividend rate. See CAPP-NGTL-157 in which Mr. Lackenbauer expresses the view that the dividend has been “effectively restored”.

1 widening of spreads that occurred because of the TCPL writedowns and
2 divestitures”.

Market to Book	Dec-96	Dec-97	Dec-98	Dec-99	Dec-00	Dec-01	Jun-02	Dec-02
TCPL	1.6 x	2.0 x	1.9 x	1.2 x	1.6 x	1.7 x	2.0 x	1.9x
CU	1.6 x	2.1 x	2.3 x	1.7 x	2.1 x	1.9 x	2.1 x	1.8x
NEB ROE	11.25%	10.67%	10.21%	9.58%	9.90%	9.61%	9.53%	9.53%
ERP	3.30%	3.53%	3.68%	3.89%	3.78%	3.88%	3.90%	3.90%

3 Under the premise that a regulated utility must have the ability to access the
4 capital markets by offering an appropriate return that will allow it to finance at a
5 price that represents at least book value, the market to book ratios in the above
6 table appear to be well in excess of the minimum standard. Some small reduction
7 in the allowed ROEs would appear to be possible without endangering the
8 strength of the balance sheets of the utilities governed by the NEB formula.

9 In the RH-4-2001 proceeding, TransCanada made a similar argument¹⁸⁵
10 suggesting that the changes in the competitive environment and financial markets
11 warranted an increase in their ROE. The NEB did not increase their ROE¹⁸⁶,
12 apparently rejecting that argument. Fortunately or unfortunately, the market
13 recognizes the changes to which companies are exposed in the stock price on a
14 minute-by-minute basis. TransCanada, the public entity which owns NGTL, the
15 Mainline and other pipelines, is followed by a host of equity analysts,¹⁸⁷ several
16 bond rating firms and thousands of investors¹⁸⁸ and potential investors, all of
17 whom to some degree make up the “market” and affect securities prices with their

In CAL-EPC-Falconer-5 (b and e) Mr. Falconer notes that the TCPL dividend payout ratio was 136% in 1998 and that investors generally become concerned about the sustainability of a dividend when a company’s dividend payout ratio exceeds 100%.

¹⁸⁵ In the Additional Written Evidence of TransCanada PipeLines Limited, November 2001, filed in the RH-4-2001 proceeding, at Page 3 of 9, Answer 3, lines 3 to 5, TransCanada observed that “changes in the competitive environment, combined with developments in financial markets, warrant an increase in the fair return of the Mainline.”

¹⁸⁶ The NEB did allow an increase in the equity layer from 30% to 33%. See page 59 of the RH-4-2001 Decision.

¹⁸⁷ On May 19, 2003, the TransCanada web site showed 9 Canadian based and 3 US based analysts as providing research on TransCanada including, BMO Nesbitt Burns, CIBC World Markets, Edward Jones, FirstEnergy, Goldman Sachs, J. P. Morgan, Merrill Lynch, National Bank Financial, Raymond James, RBC Capital Markets, Scotia Capital and UBS Warburg.

1 behavior. The “market” has been aware of the development of other pipelines for
2 years.¹⁸⁹ The “market” is made aware of the economic, competitive and political
3 developments and regulatory changes through a host of communication options.
4 The “market” is aware of the return to which the Mainline is entitled under the
5 adjustment mechanism and may anticipate the result in advance of publication
6 since the formulas are known.¹⁹⁰ The market is aware of the changing returns to
7 which NGTL is entitled as a result of the various decisions or negotiated
8 settlements.¹⁹¹ The “market” is aware of a profusion of alternative investment
9 opportunities in utilities and other industries in Canada and internationally and,
10 with all this knowledge, still awards TransCanada a large premium over its book
11 value.

12 Terasen is similarly well followed in the investment community.¹⁹²

13 Canadian Utilities Limited is also followed by a number of equity analysts¹⁹³,
14 bond rating firms and a host of investors and potential investors. The market

¹⁸⁸ Page 81 of the TransCanada annual report for 2002 shows over 30,000 registered shareholders in each of the last three years. Registered shareholders represent a fraction of the total shareholders since many shareholders will own their shares through accounts registered with an investment dealer.

¹⁸⁹ In the RH-2-94 decision that gave rise to the current adjustment mechanism, the Board observed at page 8, that “TransCanada noted that it can no longer be viewed as a monopoly with respect to deliveries to eastern Canadian markets since it faces increased competition from alternative pipelines and supplies, including U.S.-sourced supply. TransCanada pointed out that eastern Canadian local distribution companies (“LDCs”) are diversifying their gas supply portfolios to include, in some cases, up to 30% U.S.-supplied gas and are proposing new pipeline facilities to connect their franchise areas with U.S. supply and storage facilities.”

Among other proposals, applications and decisions throughout the period, on July 3, 1997, Alliance Pipeline Ltd. applied for the necessary certificates and authorizations to construct the Alliance Pipeline which was authorized in decision GH-3-97 issued in November 1998.

¹⁹⁰ The NEB, on December 8, 2000, announced the approved rate of return on common equity of 9.61% for the year 2001, on December 6, 2001 announced the approved rate of return on common equity of 9.53% for the year 2002, and on December 5, 2002 announced the approved rate of return on common equity of 9.79% for the year 2003. Since the formulas are known, and as the inputs become known the results may be estimated and anticipated by market participants. One of the benefits of the implementation of an equity return formula for Alberta based utilities would be the increase in relative certainty in the determination of future rates of return on equity which would arise from that decision. In the RBCDS report of November 5, 2002 contained in CAPP-NGTL-72, the analyst attempts such a calculation.

¹⁹¹ An example of that sort of information would be found on page 13 of the TransCanada News release and second quarter report to shareholders which discusses the anticipation of lower earnings from the “Alberta System”.

¹⁹² On May 19, 2003, the Terasen web site showed 9 analysts as providing research on the firm including, BMO Nesbitt Burns, CIBC World Markets, Credit Suisse First Boston, Edward Jones, FirstEnergy, National Bank Financial, Raymond James, RBC Capital Markets and Scotia Capital.

1 should be well aware of the business of the publicly traded applicants through
2 their public disclosure documents including their Annual Information Forms,
3 Annual and Quarterly reports.

4 **Q.39 Do you have any comments with respect to NGTL’s contention that “TCPL**
5 **is making investments today that yield returns comparable to or higher than**
6 **that sought in this Application by NGTL for the Alberta System, with**
7 **business risks that are similar or less.”?**¹⁹⁴¹⁹⁵

8 A TransCanada made a similar statement as part of its RH-4-2001 application.

9 In that proceeding and in this one, I wish them well with each of their new
10 investments. Only TransCanada can truly know what is their expectation of the
11 return and their judgment of relative business risks. Unfortunately, there are
12 many instances in which the expectation of profit in new ventures is not
13 realized.¹⁹⁶ Unless these investments are in a regulated return area the investors
14 will be exposing themselves to a level of variation in return materially greater
15 than an investment under regulation.

16 In 1999, TransCanada booked \$524 million in after-tax losses related to
17 discontinued operations. I am quite confident that in each of the investments that
18 gave rise to the 1999 losses, the decision makers approving the investment
19 expected returns “comparable to or higher” than those provided in its pipeline
20 business, “with business risks that are similar or less.” I would also note that

¹⁹³ Bloomberg, as of October 1, 2002, showed analyst coverage by BMO Nesbitt Burns, CIBC World Markets, Credit Suisse First Boston, Edward Jones, RBC Capital Markets, Raymond James, Scotia Capital.

¹⁹⁴ Written Evidence of NGTL, page 9 of 45 lines 21 to 23.

¹⁹⁵ Dr. Kolbe notes in his Written Evidence at page 16, lines 6-9, that “there is every reason to believe that direct investment in the U.S., and quite possibly in other countries as well, offers a superior risk-reward tradeoff for Canadian companies with the knowledge and size to make and manage such investments.”

¹⁹⁶ In response to CAPP 6(d), in the RH-4-2001 proceeding, TransCanada advises “most of its divested business were divested, in part, because realized returns did not meet TransCanada’s expected return.” In response to CAPP 96 (a) and (b), in the RH-4-2001 proceeding, TransCanada sets out the percentage of EBIT and the percentage of Total Assets of the Mainline and Other business for each of the years 1994 to 2000. In each of those years the Mainline assets returned a greater proportion of the EBIT than their proportion of Total Assets. Similarly, in each of those years the Other assets returned a smaller proportion of the EBIT than their proportion of Total Assets.

1 DBRS observed in its April 12, 2001 bond rating “the Company exited some of
2 its riskier areas of operation, which were yielding disappointing results”.

3 In this proceeding NGTL has indicated their belief that the performance of some
4 of TCPL’s investments is superior to that of the regulated portions of their
5 operations. In Mr. Murphy’s evidence he indicated that a credit agency believed
6 the credit quality of NGTL and the Mainline are in fact weaker than that of the
7 consolidated entity.¹⁹⁷ On its face, it would certainly be true that two strong
8 utilities when put together would be even stronger, but the tenor of the application
9 has been that the strength comes from the new investments in the “Other”
10 segment. To test that proposition, CAPP requested and received some
11 information in CAP-NGTL-172 (b-d). I have reviewed that reply and was unable
12 to confirm the calculations therein, in part, due to the fact that in each of the years
13 1999-2002, the total assets shown on the reply vary from the amounts shown on
14 the balance sheet published for that year. For 1999, the total assets shown on the
15 balance sheet were \$25.064 billion, while the CAR-NGTL-5 (a). schedule shows
16 \$20.660 billion.¹⁹⁸

17 To simplify the analysis and to facilitate comparisons, but not to correct the
18 inputs, I have attached as Schedule 5 my calculations of segmented NGTL/TCPL
19 performance. In that schedule, it is clear that the quantum of return from other
20 investments has changed from a negative to a positive number in a few short years
21 while the returns of the Alberta System and the Mainline have been relatively
22 constant. Unfortunately the average Net Income to Average Common Equity for
23 the last 4 or 5 years for the “Other” investments is not yet positive. Differences in
24 capitalization play a large part in the apparent returns. The Common Equity to
25 Total Assets for the “Other” segment remains well below that of either regulated
26 pipeline. Similarly, the EBIT to Total Assets for each of the pipeline segments
27 exceeds that of the “Other” segment. With these measures, I cannot agree with
28 the contention that the investments in the “Other” segment represent a

¹⁹⁷ See CAPP-NGL-172 (b-d) and pages 6-7 of 26 of Mr. Murphy’s evidence.

¹⁹⁸ The \$20,660 amount is also shown for 1999 in CAR-NGTL-5 (a).

1 strengthening of the consolidated TransCanada, since they are producing a lower
2 level of EBIT and are capitalized with a thinner equity layer. Clearly, the
3 financial risk of that segment appears greater than the regulated enterprises
4 whatever the level of business risk.

5 **Q.40 Do you agree that “The allowed returns need to recognize global return**
6 **opportunities”?**¹⁹⁹

7 A If this means that we should be adopting US capitalization structures and US
8 allowed returns for the utilities which are the Applicants, my answer is no.

9 The reason why I would reject the proposition is that the Canadian capital markets
10 reflect the daily ebb and flow of the international and domestic demand.²⁰⁰ All the
11 implications of all international competition for capital, not just the US utilities
12 which are referred to, are reflected in the share prices of these Canadian utilities.

13 Dr. Evans suggests that “Canadian utilities should begin to meaningfully reduce
14 the significant “leverage gap” that now exists as debt market globalization
15 intensifies.”²⁰¹ Ms. McShane, in her discussion of globalization observes “The
16 allowed returns need to recognize global return opportunities. In particular, the
17 allowed returns should recognize that U.S. utilities are viewed as close proxies for
18 an investment in a Canadian utility.”²⁰² Mr. Falconer similarly discusses the S&P
19 benchmark ratios on pages 20 and 21 of 28 of his evidence. Mr. Lackenbauer
20 suggests that “It is no longer appropriate to use Canada as the sole measuring
21 stick for any metric used to determine capital structure or allowed rate of
22 return.”²⁰³

¹⁹⁹ See page 4 of 48, lines 23-24, prepared testimony on Fair Return on Equity of Kathleen C. McShane.

²⁰⁰ See CAPP-NGTL-143 (a) and CAPP-NGTL-158. See also the Prepared Testimony on Fair Return on Equity for a Benchmark Utility by Ms. McShane at page 14 of 48 lines 11-13, where Ms. McShane appears to partially agree, at least as far as demand from the US and Canadian markets is concerned.

²⁰¹ See page 14 of Dr. Evans’ Evidence July 2003 Re Generic Cost of Capital Proceeding.

²⁰² See the Prepared Testimony on Fair Return on Equity for a Benchmark Utility by Ms. McShane at page 4 of 48 lines 23-24, and the discussion from pages 12 of 48 to 19 of 48.

²⁰³ Written Evidence of Gordon S. Lackenbauer, July 2003, page 3 line 27 to page 4 line 2. Dr. Kolbe expressed a similar concept at line 17 on page 5 of his evidence. “The purely domestic cost of capital in Canada no longer provides the only relevant benchmark for the required rate of return for Canadian rate-regulated companies”

1 It would be impossible to argue that Canadians are not investing internationally.
2 Whether the proportion of Canadians' investments in foreign equity securities is
3 increasing is another of those points of discussion where the starting point is
4 essential to the outcome. It is though insufficient to suggest that the returns in US
5 utilities are higher without reflecting the price which would be paid to acquire
6 than investment from the owner. The higher nominal return may in fact be equal
7 if I must pay a higher premium to book to participate. It is though of interest, that
8 in the discussion of the prospect of BBB utilities needing to access the US capital
9 markets for debt, the prospect of "significant currency risk" was raised.²⁰⁴
10 Clearly, in seeking those apparently higher returns abroad, Canadian investors
11 must face a host of factors including the potential that changes in the currency
12 will erode any apparent nominal return advantage.

13 We are also advised that the foreign property limits for RRSPs have been
14 increased from 20% to 30% since 2000, as though the increase in the limit was
15 important in and of itself. In fact, the level of investment in those classes of
16 mutual funds defined as foreign has been in decline since mid 2000, and the
17 actual level of foreign investment in RRSPs is well below the limit for most
18 Canadians.²⁰⁵ The apparent increase in the proportion of foreign investments in
19 mutual funds and the increases in the authorized foreign component allowed in
20 RRSPs and other regulated accounts, does not compel us to adopt the various
21 American investment criteria in Canada.²⁰⁶ I am of the opinion that the Canadian
22 market reflects the daily ebb and flow of foreign investment on a daily basis and
23 has done so since foreign investment began.²⁰⁷ For that reason, I would urge that
24 we not be swayed to import foreign investment criteria, since our market reflects
25 daily the sum of both local and international demand for the securities offered.
26 This is particularly true for utility stocks, since they are, in the absence of the

²⁰⁴ See CG-NGTL-63.

²⁰⁵ See CAL-AP-28, in the ATCO Pipelines proceeding, in which we are advised that the average foreign content in RRSPs appears to be 9.9%.

²⁰⁶ Mr. McCormick replied to a question about his views concerning the adoption of "the various American investment criteria in Canada" in AP-CAL-20 in the ATCO Pipelines proceeding.

²⁰⁷ See CAPP-NGTL-143 and CAPP-NGTL-158.

1 scent of a take-over opportunity, the quintessential Canadian investment.²⁰⁸ In this
2 regard, it is noteworthy that a tiny percentage of the registered shareholders of
3 Canadian Utilities Limited are non-Canadian,²⁰⁹ For NGTL's parent, the foreign
4 ownership percentage is approximately 13%.²¹⁰

5 **Q.41 Where do bond ratings fit within your analysis?**

6 A Bond ratings are one of many sources of information available to the market on an
7 issuer's securities. Bond ratings provide the market with an independent
8 assessment or measure of the relative probability that the debt of the various
9 issuers will be repaid in accordance with the terms of the instruments. The rating
10 could be viewed as a proxy for an assessment of business risk and financing risk.
11 I do not believe that the opinions of bond rating agencies should drive the
12 Canadian regulatory process.

13 Bond rating does not appear to be an exact science. The ratings for individual
14 firms are developed through the individual judgment of those employed by the
15 various rating agencies. Consequently the changing and sometime divergent²¹¹
16 judgments of bond raters, at any particular time, should not be the sole driver of
17 the allowed return for a regulated utility, and in my view, are no substitute for the
18 views of the regulator. This is particularly true when the financing entity is also
19 financing assets beyond those included in the rate base since the financing of

²⁰⁸ One of the reasons for the greater attraction of Canadian dividend paying stocks to Canadian investors is the dividend tax credit which is available to certain Canadian resident taxpayers. See BR-NGTL-33.

²⁰⁹ See CAPP-AP-51 in the ATCO Pipelines proceeding in which we are advised that approximately 99.9% of the registered shareholders of Canadian Utilities Limited are Canadian. Mr. McCormick would also agree with the observation of Mr. Lackenbauer, Deputy Chairman of BMO Nesbitt Burns, who in his evidence in the RH-4-2001 proceeding, at page 6, observed "It is noteworthy that few foreign investors are interested in Canadian [u]tility stocks unless there is a strong takeover possibility or a strong growth story. They are not interested in Canadian dividend yield plays and the U.S. utilities provide more attractive opportunities to them." See also CAL-ATCO-McShane-1 (b, c, and d) and CAL-EPC-Falconer-2 (c, d and e).

²¹⁰ See CAPP-NGTL-8.

²¹¹ AltaLink has enjoyed an "A (high) rating from DBRS since July 2002, but it appears that S&P was unwilling to grant an "A-" rating without AltaLink "securing its senior debt by granting a floating charge". See paragraph 8 to the AltaLink financing approval application dated December 12, 2002. In BR-EPC-15 we are advised that DBRS looks at operating cash flow to total debt, rather than focusing on "Funds from Operations" a measure used by certain of the S&P benchmark ratios. CAL-EPC-Falconer-11 (d) notes that it is unusual to see a two-notch difference between a company's ratings from two rating agencies.

1 those assets may affect the bond rating upon which the regulated entity will
2 market its bonds.²¹²

3 A company's debt instruments do not always trade in line with the bond rating.
4 As demand ebbs and flows, spreads will vary from those in the same rating
5 category. Spreads can widen out before downgrades occur because the debt
6 markets can respond more quickly to changes in circumstances than do the rating
7 agencies.²¹³ Spreads can widen or narrow due to matters not directly related to the
8 credit quality of the specific company including anticipated financings and
9 anticipated shortages of new government bonds due to increasing government
10 surpluses.

11 There also appears to be some range of opinion as to the extent to which investors
12 should rely on the opinions of bond raters²¹⁴.

13 **Q.42 Can you comment on the importance of the S&P business position or**
14 **business profile ranking and the Utility Benchmark Ratios?**

15 A Yes, I noted in the various prior proceedings several applicants have suggested
16 that the Board should align its decisions with the S&P "business position ranking"
17 and S&P's various guidelines for interest coverage and capital structure. In this
18 proceeding, many of the applicants²¹⁵ also appeared to attach considerable
19 importance to the existence of these ratios, suggesting in various ways that the
20 Board should adopt either a capital structure, a rate of return or both that would
21 improve the conformity with the alleged benchmarks so as to allow each of those
22 applicants to obtain or maintain an A rating.

²¹² In CAPP-NGTL-162 (f) Mr. Lackenbauer observes "the widening of spreads that occurred because of the TCPL writedowns and divestitures".

²¹³ See CAL-EPC-Falconer-11 (c and e).

²¹⁴ Mr. Lackenbauer appears to agree in that he comments "Investors have learned that they cannot simply rely on the credit rating agencies because the reality is that the rating agencies never lead the market but effectively wind up confirming what has already occurred", Written Evidence of Gordon S. Lackenbauer, July 2003, page 15 lines 20-22.

²¹⁵ See page 10-13 of Dr. Evans' Evidence July 2003 Re Generic Cost of Capital Proceeding. See also the Prepared Testimony on Capital Structures for the ATCO Utilities, July 2003, pages 3 and 4 of 17 and pages 6 of 17 to page 15 of 17. See also Ms. McShane's Evidence on Capital Structure for the AltaGas Utilities,

1 The analysis of those applicants stressing the importance of the S&P criteria
2 appears to be based on the premises that instantaneous market access is essential
3 to the financial health of a utility, only an A rating can assure that instantaneous
4 market access, and achieving the S&P guideline ratios is essential to assure that
5 the targeted A rating will be awarded. While a high bond rating would be
6 convenient, none of those premises are immutable. Debt issues are done in
7 lumps, and depending on the utility, issues of \$100 million or more can be
8 common. Utilities enter the market from time to time as they perceive market
9 conditions to be favorable in light of their financing program, either prefunding
10 debt or relying on lines of credit until the market conditions appear opportune.
11 Doing a utility debt issue does not have the same just in time, life or death,
12 requirement that the Canadian Blood Service faces in servicing our hospitals.

13 While I am quite confident that among the hundreds of utilities rated by S&P,
14 there is a portion that are meeting the benchmark ratios for their published
15 business position rating, based on the record to date, it is clear to me that there are
16 material variations in the ratings granted from that which would be indicated by
17 the guideline ratios. I also noted that the applicants did not provide very much in
18 the way of analysis as to whether the ratings awarded by S&P to Canadian and
19 international utilities aligned with the alleged benchmarks.

20 Another of the many problems in attaching significance to the business position
21 ranking is that it may not be based on the stand-alone characteristics of the
22 regulated entity.²¹⁶ I believe the potential that these ratings are affected by
23 influences beyond that of the regulated utility substantially reduce their value as a
24 determining factor as a measure of the appropriate capital structure of Alberta
25 utilities.

July 2003, page 3 of 5. Mr. Falconer similarly discusses the S&P benchmark ratios on pages 20 and 21 of 28 of his evidence.

²¹⁶ In CAL-ALP-Evans-5, Dr. Evans reported “In a number of cases, however, the S&P rating of the operating utility is substantially influenced by the consolidated operations of its parent. Under such circumstances, S&P may not assign a business position ranking to the operating utility but may instead assign a rating based on the circumstances of the parent. S&P may also assign business position rankings

1 **Q.43 Do the S&P ratings conform to the Utility Benchmark Ratios for the various**
2 **business position or business profile rankings?**

3 A With the limited information on the record the degree of conformity between the
4 ratings and the relevant benchmark seems very spotty at best. In general, with
5 respect to the debt to total capital ratio, Canadian, European and Japanese utilities
6 all appear to have more debt than would be allowed for their business position and
7 assigned rating. With respect to several of the US utilities discussed in Mr.
8 Murphy's evidence, they appear to have S&P ratings well below the level
9 indicated by their debt to total capital ratio.

10 In CAL-AP-60 in the ATCO Pipelines proceeding, ATCO calculated the degree
11 of compliance with the alleged benchmarks for six Canadian utility companies
12 rated by S&P. We see that fully 50%, three of the six utility companies listed, did
13 not meet any of the four benchmarks. That information request also shows two
14 companies meet only one of the four benchmarks and the remaining company met
15 two of the four benchmarks. In AUMA-AP-9 in the ATCO Pipelines proceeding,
16 we learn that at that time, only 6²¹⁷ of the approximately 14 S&P rated Canadian
17 utilities found on Schedule 1 to Ms. McShane's ATCO Pipelines evidence have
18 been assigned a business position score, making further analysis of the degree of
19 compliance with the alleged benchmarks impossible with respect to those
20 companies. As such, it appears that the S&P benchmarks are on par with a speed
21 limit sign on the highway between Calgary and Edmonton, with a few drivers
22 following the rules some of the time, but the balance ignoring the purported
23 limits.

24 The record in this and many of those other proceedings is clear that a number of
25 S&P rated companies lack a published "business position ranking."²¹⁸ The record

to operating utilities but may not publish those rankings." See also CAL-ALP-Evans-10(c) and CAL-EPC-Falconer-8 (a and c).

²¹⁷ In Table 4 of Ms. McShane's Prepared Testimony on Capital Structure for ATCO Utilities, she provides the business risk profile of 7 utilities.

²¹⁸ See the Prepared Testimony on Fair Return on Equity for a Benchmark Utility by Ms. McShane at page 36 of 48 lines 9-16, where Ms. McShane indicates that 7 utilities have a business risk profile. Only 2 of the 11 applicants are on that list. Mr. Falconer in CAL-EPC-Falconer-14 (b), would not speculate as to why an

1 is also clear that not one²¹⁹ of rated companies with a published business position
2 ranking for which the applicants have provided the statistics met all the criteria
3 for its rating category.

4 In this proceeding, several of the applicants' experts have continued to assert that
5 it is important to comply with these alleged benchmarks²²⁰. In spite of these
6 continued assertions there is little added additional information to the record to
7 demonstrate that the benchmarks are being rigorously applied. Several
8 intervenors sought to test the support for this proposition. CAPP requested that
9 certain of the experts calculate or provide the benchmark ratios for certain of the
10 US and Canadian utilities provided as examples in their evidence. In reply to
11 CAPP-NGTL-177 (c & b), Mr. Murphy declined to provide the information.²²¹ In
12 CAL-ALP-Evans-5 (c), Dr. Evans was asked to identify the extent to which S&P
13 rated utility issuers met the benchmark ratios for their rating category. Dr. Evans
14 reply did not provide any indication of the extent of compliance. Mr. Falconer
15 was also asked to calculate the extent to which companies in his evidence met,
16 failed to meet or exceeded the benchmarks, but did not provide that
17 information.²²²

18 In the tables 2 through 10 of Mr. Murphy's evidence, he provides a range of
19 statistics related primarily to the various American pipelines he has chosen as
20 examples. In table 9, he provides the S&P business profile and S&P corporate
21 credit rating. In table 6 Mr. Murphy provides the allowed rate of return and the
22 authorized equity ratio for many of the companies in table 9. In table 5 he

S&P rated company might not have a business position ranking. See also CAPP-NGTL-177 (a) where we learn that 4 Canadian pipelines in Mr. Murphy's sample "do not have published Business Profiles."

²¹⁹ See CAL-AP-60 from the ATCO Pipelines proceeding. See also CAPP-NGTL-177 (c & b), and CAL-ALP-Evans-5 (c).

²²⁰ See the discussion of S&P benchmarks and international peers in the Evidence of Dr. Evans pages 3, 10 to 15. See the discussion of the Relevance of Standard and Poor's Guidelines, pages 6 of 17 to 9 of 17 in Ms. McShane's Prepared Testimony on Capital Structures. See the discussion of S&P benchmarks in the Evidence of Mr. Richard Falconer at page 20. See the discussion of S&P benchmarks in the Evidence of Mr. Paul J. Murphy at pages 16 of 26 to 18 of 26.

²²¹ See also CG-NGTL-62.

²²² See CAL-EPC-Falconer-14 (a).

1 provides a portion of the S&P benchmark ratio table.²²³ A review of these tables
2 shows that four pipelines with authorized equity layers in the 55% to 62% range,
3 and equity returns in the 12% are rated in the B range. It appears that to S&P,
4 high returns and a high equity layer is not an assurance of an investment grade
5 rating.

6 EPC also indicated that it has applied for an S&P rating²²⁴ and that its
7 recommended capital structure was based upon the “guidelines from S&P to
8 maintain an A-rating”.²²⁵ In CAL-EPC-17, when asked to provide the business
9 position ranking and the degree to which other Canadian issuers had achieved the
10 alleged benchmarks, EPC advised that it did not have the information. Similarly,
11 EPC was unaware of whether other Canadian issuers rated by S&P had not been
12 assigned a business position rating.

13 To attempt to determine whether these purported international²²⁶ standards were
14 broadly and rigorously applied in the S&P ratings of major utilities, I reviewed
15 certain of the information available to the public on the S&P web site and the web
16 sites of a few major international utilities. In the case of Vattenfall AB²²⁷, a
17 Swedish based European utility with a rating of A- from S&P and a Business
18 Profile of 5, depending on whether one looked at raw, adjusted or net 2002 data
19 for each of the four alleged benchmarks it met only one, none, or two
20 respectively. In sum, in the three cases, it met the benchmarks in only 3 of 12 of
21 instances.

22 The table below provides the current business position rating, the benchmark
23 ratios as contained recent rating information by S&P for several international
24 utilities and calculates the percentage for which the benchmarks for that rating
25 were achieved.

²²³ A more complete table with the AA and B ranges can be found in AUMA-AP-11.

²²⁴ See page 8 of 22, of the Application of ENMAX Power Corporation and CAL-EPC-7.

²²⁵ See page 19 of 22, of the Application of ENMAX Power Corporation.

²²⁶ In CAL-ALP-Evans-6, we obtain confirmation that the S&P harmonization program would apply to Japanese, Asian and European utilities.

²²⁷ Information about the Vattenfall S&P rating may be found on their web site, www.vattenfall.com.

Company	% of Ratios		Business Profile	S&P Rating	S&P Benchmark Ratios for Business Profile Rating								
	Met	Year			FFO/Total Debt		FFO Interest Coverage		Pretax Interest Coverage		Total Debt/Total Capital		
RWE AG			4.5	A+	4	30.5	24.5	4.5	3.8	4.3	3.5	43.0	49.5
					5	33.0	27.0	4.8	4.0	4.0	3.3	41.5	47.0
	50%	2001	raw			yes	58.5	yes	4.7	no	2.8	no	56.3
		2001	net				- 63.4		- 9.7	-	4.2		3.2
National Grid			3	A		26.0	20.0	3.9	3.1	3.4	2.8	47.5	53.0
	25%	2001	raw			no	16.6	no	2.6	yes	3.4	no	54.4
	25%	2001	adjusted			no	16.0	no	2.4	yes	3.1	no	57.5
Endesa S. A.			5	A		33.0	27.0	4.8	4.0	4.0	3.3	41.5	47.0
	0%	2001	raw			no	13.1	no	2.9	no	2.1	no	66.6
	0%	2001	net			no	13.2	no	3.3	no	2.3	no	66.3
Vattenfall			5	A-		33.0	27.0	4.8	4.0	4.0	3.3	41.5	47.0
	25%	2002	raw			no	18.8	yes	4.5	no	3.0	no	63.0
	0%	2002	adjusted			no	16.2	no	3.8	no	2.6	no	67.0
	50%	2002	net			no	18.5	yes	6.7	yes	4.2	no	59.0

1 Generally speaking, there is a relatively low level of symmetry between the
2 business position, the applicable guideline ratios and the resulting rating.

3 I also wanted to compare the S&P benchmarks for a number of Japanese utilities.
4 The table below presents several of the benchmarks for those rated companies.
5 As I was unable to discover a published business position ranking of these
6 companies I have assumed that they are placed as “1”, and would therefore be
7 entitled to the lowest interest coverage and the highest debt levels as part of its
8 total capitalization. I believe that is would be more reasonable to assume that
9 some of these companies would have a lower business position ranking, perhaps a
10 2, and for that reason would fail to meet the FFO/total debt ratio.

S&P Benchmark Ratios for Business Profile Rating							
Company	Year	Business Profile	S&P Rating	FFO/ Total Debt		Total Debt/ Total Capital	
Chubu Electric Power Co.		1	AA-	20.0	16.5	50.0	55.0
	2001				15.2		77.6
Hokkaido Electric Power Co.		1	AA-	20.0	16.5	50.0	55.0
	2001				16.8		70.6
	Mar-02						71.0
Hokuriku Electric Power		1	AA-	20.0	16.5	50.0	55.0
	2001				12.7		76.7
	Mar-02						77.0
Kansai Electric Power Co.		1	AA-pi	20.0	16.5	50.0	55.0
	2001				16.7		73.7
Tohoku Electric Power Co.		1	AA-	20.0	16.5	50.0	55.0
	2001				17.0		74.6
	Mar-02						77.0

1

2 For each of the Japanese utilities, the proportion of debt in the total capital was
3 well beyond the benchmark ratio for the highest rated business profile company.
4 For two of the companies, the FFO to total debt ratio was also below the level.
5 While I would expect the FFO interest coverage and pre-tax interest coverage
6 ratios to be very good, considering the very low interest rates that have prevailed
7 in Japan for some years, I conclude that there is no requirement to achieve each of
8 the ratios proposed as guidelines, and that of all the four guideline ratios, the debt
9 to total capital ratio is the least important.

10 Both CAPP and Calgary attempted to expand the record by asking the experts of
11 the applicants for confirmation that certain major international utilities had ratios
12 in line with the alleged benchmarks for their business positions and awarded S&P
13 ratings²²⁸ In CAL-ALP-Evans-7, Calgary inquired as to the business position
14 ranking and ratios of several leading European and Japanese utilities which were
15 rated by S&P. Dr. Evans replied that he had not relied on the business position
16 ranking and ratios of those companies.

17 In sum, I am not persuaded that achieving the debt to total capital ratio is either
18 necessary or will assure being awarded an investment grade rating by S&P.

²²⁸ See CAL-ALP-Evans-7 (b) and CAPP-NGTL-177.

1 **Q.44 Do the S&P bond ratings restrict their analysis to the stand-alone utilities?**

2 A No, and as a result of the S&P rating being influenced by ancillary factors, those
3 ratings are an imperfect guide for the needs of stand-alone Alberta regulated
4 utilities.

5 Many of the entities that S&P rates are not stand-alone utilities. In this
6 proceeding, each of the applicants relies to some measure on other members of
7 the corporate family as financing entities.

8 Dr. Evans notes in CAL-ALP-Evans-5, that “in a number of cases, however, the
9 S&P rating of the operating utility is substantially influenced by the consolidated
10 operation of its parent”, but AltaLink notes in CAP-ALP-4 that in its specific
11 case, as it is ring fenced, the credit rating of ALP is not affected by AILP.²²⁹

12 Mr. Falconer, in CAL-EPC-Falconer.8 (a and c) was similarly unable to confirm
13 that rating agencies always use the stand-alone principle in their analysis and
14 further agreed that several US and Canadian utilities have had their ratings
15 affected by the rating agency views of their parent organization.²³⁰

16 This can also be seen in the data provided by Mr. Murphy in which he shows
17 several tables of information related to US utilities with higher equity layers in the
18 capital structure and higher awarded or achieved returns and lower ratings than
19 the Canadian utilities. In CAPP-NGTL-171, Mr. Murphy observes that rating
20 agencies analyze the credit of “subsidiaries”, rather than the stand-alone utility
21 operations that may be a portion of that particular corporation. He also noted that
22 a “strong subsidiary owned by a weak parent is generally rated no higher than the
23 parent”.

24 It appears that DBRS also takes note of the ownership structure in its assessment
25 of ratings. In making its assessment of Enmax, DBRS notes as a “Strength” the

²²⁹ By way of contrast and to underscore the range of opinions that may exist among rating agencies, the DBRS May 15, 2003, report on AltaLink notes the “dependence on financially weaker parent” as one of the “Challenges”. Dr. Evans suggested in CAL-ALP-Evans-10 (a, b) that “the DBRS and S&P ratings of AltaLink’s debt are based on the circumstances of AltaLink itself.” See also CAL-ALP-Evans-1 (c).

²³⁰ See also CAL-EPC-Neri-27 (k).

1 “Financially strong parent (City of Calgary-AA)”. Although the rating of the
2 parent is apparently relevant to the various rating agencies, and the views of the
3 rating agencies are apparently relevant to formation of the determination of proper
4 capital structure and rates of return,²³¹ curiously some applicants suggest “the
5 stand-alone principle suggests that the credit rating of the ... shareholder ...
6 would not be relevant.”²³²

7 **Q.45 What is more important an “A” rating or a specific²³³ interest coverage ratio?**

8 A Of the two, I would view the “A” rating as more important. However, neither of
9 those items, the rating or the interest coverage ratio, are as important as the
10 “market” reaction to the financial position of the company.

11 It is also clear that the various rating benchmarks, including interest coverage
12 ratios, “are not written in stone”. I would observe that TransCanada has been able
13 to maintain an “A/A-” rating for a number of years without maintaining a 2 times
14 interest coverage ratio. Other issuers have been awarded an A rating by S&P
15 without meeting any of their benchmarks²³⁴. In the sample of six companies with
16 S&P business position rankings and bond ratings provided in attachment CAL-
17 AP-60, only one of the six companies met half of the four criteria for its rating
18 and business position, and three of the six companies met none of the four criteria
19 for their rating and business position.²³⁵ As such, it would appear that slavish
20 adherence to these criteria is unwarranted.

21 To propose a minimum interest coverage ratio target effectively makes the equity
22 return a function of the weighted average cost of the existing debt issues and the

²³¹ See page 19 of 22 of the Application of ENMAX Power Corporation.

²³² CAL-EPC-13.

²³³ S&P has indicated various interest coverage ratios of various business position rankings.

²³⁴ Attachment CAL-AP-60 from the ATCO Pipelines proceeding, provides the recent compliance with the S&P ratings benchmarks of six Canadian Utility issuers. Three of the six companies in that table, Hydro One, Nova Scotia Power and TransCanada Pipelines, did not meet any of the four S&P rating benchmarks for their business risk ranking.

²³⁵ Only one of those six companies, Enbridge Consumers Gas, met two of the S&P rating benchmarks for its business risk ranking. Two of those six companies, Enbridge Inc and Newfoundland Power, met only one of the four S&P rating benchmarks for their business risk ranking. Two of the criteria, FFO/total debt and EBIT interest coverage were not met by any company.

1 current tax rate. I have in the evidence in other proceedings²³⁶ presented tables
2 showing the relationship, but I will not repeat them in this document.

3 One of the principle causes of the current regulatory issue related to the pressure
4 on interest coverage ratios is the higher embedded cost of debt, which due to its
5 long term nature is less responsive to change, relative to the current market rates
6 of return required for equity.²³⁷

7 **Q.46 Is an “A” rating essential to utilities?**²³⁸

8 A It clearly is not essential to US based utilities, since a minority of them now enjoy
9 that rating.²³⁹ Among the applicants, AltaGas is rated BBB (low) by DBRS.

10 Several commentators have reported that that none of the applicants have had
11 trouble raising capital²⁴⁰ but have expressed concerns with respect to the market
12 reaction in the event of a downgrade from the A rated credit levels to the BBB
13 levels. Several commentators also have observed that the markets in the US are
14 more receptive to BBB credits. Since there appears to be more BBB utility
15 credits than A utility credits in the US this should not be a surprise. Some of the
16 commentators have expressed the view that US and Canadian market metrics are
17 fungible. Others have suggested that the markets are not perfectly integrated.²⁴¹
18 As I testified earlier²⁴², I have not seen an indication that the market is reacting to
19 the S&P announcement of a review of the importance of regulation and the
20 chance of a host of utility downgrades.

²³⁶ By way of example see page 45 of my evidence in the ATCO Pipelines proceeding.

²³⁷ See CAPP-NGTL-163 (a).

²³⁸ Mr. Falconer discusses the importance of maintaining an A rating at page 16 to 19 of his evidence.

²³⁹ “See CG-EPC-34 (a) where we learn that only “30% of all utilities and utility holding companies rated by S&P currently carry a rating higher than ‘BBB+’” and the April 24, 2003 S&P document attached to CG-EPC-34 (b) which covers US Utilities, where we learn that “About 38% of the industry as a whole now carries ratings of ‘A-’ and above.” See also CAL-EPC-Falconer-1 (b) in which Mr. Falconer supplies a pie chart showing that only 30% of US utilities were rated A or better, 48% rated BBB and 22% non-investment grade.

²⁴⁰ Variance reference included CAPP-NGTL-13 (a & b), CAPP-NGTL-142 and CG-NGTL-59 with respect to financing of BBB rated utilities.

²⁴¹ See CAL-EPC-Neri-16 (d).

²⁴² See the discussion beginning at ATCO Pipelines transcript page 1284 line 18.

1 **Q.47 Where do equity analyst comments fit within your analysis?**

2 A Equity analyst comments are another of the many sources of information
3 available to the market on an issuer's securities. Generally, these comments are
4 "selling" documents intending to encourage a commissionable trade in the
5 securities. In the same way that bond rating agencies have a particular
6 constituency, the interests of which they strive to promote, equity analysts have a
7 constituency. The constituency which equity analysts serve will benefit from
8 increases in allowed equity returns. Unlike this Board, that constituency does not
9 have any obligation to assure that the return allowed to utilities be fair or
10 adequate. Generous returns would always be more attractive than merely adequate
11 returns. As such, it should be no surprise that analysts would prefer higher rather
12 than lower returns.

13 In one respect the world of regulated companies and unregulated companies
14 differs materially. Unregulated companies are exposed to the full range of market
15 changes on a minute by minute basis while in the world of regulation, rates of
16 return may be set either by decision or by negotiation for periods of years.
17 Providing research recommendations in a period where returns are rising appears
18 to a more pleasant task than when the returns are falling. However unpalatable it
19 may be in times of declining interest rates or risk premia, as the market changes
20 new levels of return will become appropriate. There is no new minimum
21 benchmark return set with the results of a negotiated settlement or award from a
22 regulatory decision now several years past.

23 **Q.48 Do the opinions of equity analysts drive the market?**²⁴³

24 A Among all the various factors that affect the capital markets it is difficult to select
25 one with any degree of confidence and attach to it some form of primacy. Like
26 bond rating agencies, at any particular time the group of analysts following a
27 company or sector will have a range of opinions. Like any group of human

²⁴³ Mr. Falconer discusses the impact of the opinion of analysts at pages 12 and 13 of 28 of his evidence.

1 beings their expectations do not always come to pass.²⁴⁴ As such, to attempt to
2 distill the impact of the opinions of a group of investment analysts borders on the
3 impossible. It will vary over time as their changing recommendations are
4 perceived as insightful or timely or out of step with the fundamentals of the
5 companies they follow.

6 In the research documents provided in response to CAPP-NGTL-161 (q) there
7 were a number of comments with respect to analyst's expectations as to the result
8 of the RH-4-2001 proceeding and its aftermath. In spite of the suggestions that
9 the NEB apparently "missed the point" in the RH-4-2001 decision, the shares of
10 TCPL continued to be rated and Outperform.²⁴⁵

11 Several commentators have reported that none of the utilities with which they are
12 familiar or their specific applicants have had trouble raising capital.²⁴⁶ I continue
13 to believe that the high market to book ratios of the utility companies and the ease
14 with which income funds raise capital confirms that the returns allowed these
15 utilities and under the NEB and BCUC formulas are generous.

16 **Q.49 What would be the market reaction to the adoption of the formula you have**
17 **recommended?**

18 A There will be at least two discrete elements in the market reaction to the
19 implementation of an Alberta formula. The first will relate to the fact of the
20 formula, which I believe will generally be positively regarded, as it will bring

²⁴⁴ In CAL-EPC-Falconer-3 (e), Mr. Falconer provides the April 3, 2002 target prices for a group of utilities followed by certain analysts. To compare those targets to the prices on March 30, 2003 would show that in some cases there were substantial variations between the then expectation and the result. In the case of Canadian Utilities the estimate was nearly 20% higher than the resulting share price which dropped about 20% over that time period.

In CAL-EPC-Falconer-3 (e), Mr. Falconer provides similar data for the analyst recommendations with respect to BC Gas. The share price dropped approximately 21% between January 1999 and 2000, which would have caused the analysts recommendation to be off by about 27%.

In CAL-EPC-Falconer-3 (h), Mr. Falconer provides similar data for the analyst recommendations with respect to TransCanada. The share price dropped approximately 52% between February 1999 and 2000, which would have caused the analysts recommendation to be off by about 61%.

²⁴⁵ See the June 24, 2002 research comment found at page 180 of 415 in the reply to CAPP-NGTL-161 (q). The shares remained in the outperform category until they hit \$24.45 in May 2003.

²⁴⁶ Various references include CAPP-NGTL-13 (a&b) and CAPP-NGTL-142 and CG-NGTL-59 with respect to financing of BBB rated utilities.

1 Alberta utilities into a parallel position with many other Canadian utilities. The
2 second aspect will relate to the ROE number that will result from the application
3 of that formula. On that aspect, the market is aware that the general trend in return
4 on equity awards has been downward. With respect to the various issuers, the
5 market reaction will vary, in part, due to the proportion of their enterprise which
6 is governed by the new formula and a host of other factors which will influence
7 the market generally. The market reaction will also vary in part, based on the
8 market expectation of degree of downward movement in the allowed return and
9 the extent to which the return which they have been allowed on their regulated
10 assets in past will vary from the return allowed under the formula.²⁴⁷

11 It is difficult to precisely determine the impact of that decision on the investment
12 community and capital markets, since the reaction will depend upon the market
13 expectation and other factors affecting general market tone. Whether the market
14 will rise or fall will depend²⁴⁸, in part, on whether the specific formula was within
15 the range anticipated by investors.

16 **Conclusion**

17 **Q.50 Please review your conclusions.**

18 A. The adoption of a formula would increase the certainty in the Alberta regulatory
19 environment.

20 The combination of the equity return applied for and the common equity ratio by
21 each of the utilities appear to be in excess of the current requirements of the
22 financial markets, relative to the markets' perception of the underlying business
23 risk of these Alberta utilities.

24 A more appropriate equity return would be one derived from a formula similar to
25 those used by the NEB or the BCUC, adjusted to recognize the shares of
26 companies, which are the owners of most regulated utilities subject to those
27 formulas, are trading at substantial premiums to the underlying book values. That

²⁴⁷ I addressed on some of the other factors which can affect the price of a security in my reply to AP-CAL-16 (c), in the ATCO Pipelines proceeding.

²⁴⁸ Dr. Kolbe expresses a similar view in CAPP-NGTL-108 (a).

1 adjustment should reduce the current equity risk premium to the 262 basis point
2 level recommended by Dr. Booth.

3 **Q.51 Does this conclude your evidence?**

4 A Yes.

ATTACHMENT 1

PROFESSIONAL QUALIFICATIONS OF JOHN D. McCORMICK

Academic Training

LL.B. from the University of Alberta (1978)
M.B.A. in Accounting from the University of Alberta (1975)
B.A. in Political Science, from the University of Calgary (1972)

Professional Organizations

Law Society of Alberta

Professional Experience

September 1975 - May 1978 - Sessional Lecturer for the Department of Accounting, the Faculty of Business Administration and Commerce, the University of Alberta

June 1978 - March 1983 – Barrister & Solicitor and Articling Student, Parlee, Irving, Henning, Mustard & Rodney, Edmonton

September 1980 - May 1982 - Sessional Lecturer (M.B.A. Tax) for the Department of Legal and Industrial Relations, the Faculty of Business Administration and Commerce, the University of Alberta

March 1983 - October 1991 – Associate rising to Vice-President and Director, ScotiaMcLeod, Toronto and Calgary

In this capacity, Mr. McCormick represented the firm in transactions ranging from small private placements to major financings including the initial public offerings of Telus and Petro-Canada. The transactions included the issuance of preferred and common shares, special warrants, rights, warrants, partnership units, and trust and royalty units . . . domestic deals and crossborder financings. He executed approximately \$5 billion of financing, wrote five trust deeds for major borrowers in the energy industry covering secured and unsecured obligations in the domestic and European markets, and assisted a major airline to renegotiate the terms of its convertible debentures with key financial institutions. In the utility area, he provided coverage of a number of western Canadian utility issuers including Nova, Alberta Natural Gas and Foothills Pipe Lines. He developed expertise in a number of industries including Canadian energy and petroleum services, pipelines, basic and specialty chemicals, airlines, pulp and forest products, telephone and telecommunications, and magnesium.

November 1991 – January 1994 – President, J. D. McCormick Financial Services, Inc., Calgary

January 1994 – January 1997 – Vice-President & Director, Levesque Beaubien Geoffrion, Calgary

In this capacity, Mr. McCormick was responsible for account coverage of over 125 account relationships in Alberta, British Columbia and Saskatchewan. He gained additional expertise in the banking, gold and satellite communications industries.

January 1997 – October 1997 – President, J. D. McCormick Financial Services, Inc., Calgary

October 1997 - May 1998 – Sprott Securities, Calgary

May 1998 – present – President, J. D. McCormick Financial Services, Inc., Calgary

In this capacity, Mr. McCormick secured and executed valuation and financial advice assignments with junior and senior public companies and government. He assisted a senior issuer in a securitization transaction. He provided financial advice with respect to the recapitalization of Sunoma and Barrington, which had over \$400 million in debt, fairness opinions to directors of TSE, CDNX and ASE listed companies. He provided financial advice in respect of several oil and gas industry merger and acquisition assignments, including advice to Tappit in respect of its attempted \$13 million hostile takeover of Backer, and expert testimony or reports in three securities cases in Alberta and Saskatchewan. Among other things, he was retained to provide, strategic advice with respect to several corporate reorganizations, a valuation of a U.S. corporation with equity valued at over \$200 million and strategic advice to its owner, advice in respect of a \$15 million equity financing, the negotiation of a long term joint venture, disposition of an oil services firm, and, advice in respect of software company concerning a private placement by a major industry partner.

Previous Expert Reports

Mr. McCormick was retained by the Alberta Energy and Utilities Board to give evidence at the 2000 Pool Price Deferral Accounts Proceeding, which resulted in Decision 2001-92, and by the Canadian Association of Petroleum Producers to give evidence at the TransCanada Pipelines 2001 and 2002 Fair Return Application proceeding, which resulted in Decision RH-4-2001. Mr. McCormick was retained by The City of Calgary to give evidence before the Alberta Energy and Utilities Board in respect of the recent AltaLink proceeding, which resulted in Decision 2003-61, ATCO Gas application number 1275466, the ATCO Electric application number 1275494 and the ATCO Pipelines application number 1292783 for which decisions are pending. He has provided expert reports in respect of a number of lawsuits related to securities matters.

SCHEDULES

Schedule 1

Applicants' Recommended Equity Return and Minimum Equity Layer

Company	Equity Return		Specific Request	Minimum Equity Layer
	Low	High		
ATCO Electric Transco	11.00%	11.50%		38.0%
ATCO Electric Disco	11.00%	11.50%		45.0%
ATCO Gas ²⁴⁹	11.00%	11.50%		40.0%
ATCO Pipeline ²⁵⁰	11.00%	11.50%		50.0%
AltaGas	11.00%	11.50%		45.0%
AltaLink ²⁵¹	10.50%	10.75%		37.5%
Aquila	10.75%	11.00%		42.5%
EDI	11.00%	11.25%		45.0%
ETI	11.00%	11.25%		40.0%
ENMAX ²⁵²	10.75%	11.25%	11.00%	50.0%
NGTL ²⁵³	10.25%	11.50%	11.00%	40.0%

The equity layers set out above do not include any additions related to special factors recommended by some experts including the absence of a “sunset” provision.

²⁴⁹ The equity recommendations of the various ATCO utilities are found on found on page 2 of 7 of Section 3.1 in the Evidence of the ATCO Utilities on Capital Structure.

²⁵⁰ The recommendation for the return on common equity for the various ATCO utilities is found on page 2 of 11 of Section 2.1 in the Evidence of the ATCO Utilities on the Fair Return on Equity.

²⁵¹ Dr. Evans recommendations for AltaLink, Aquila, EPCOR Distribution and EPCOR Transmission are found on pages 3 and 4 of his Direct Evidence.

²⁵² The recommendation for common equity ratio for ENMAX and the equity return are respectively found on pages 19 of 22 and 21 of 22 in the Application of ENMAX Power Corporation.

²⁵³ The recommendation for common equity ratio for NGTL and the equity return is found on page 4 of 45 of Section 2.1 in the Written Evidence of NGTL.

Schedule 2

Estimate of the after tax return of Pembina Distribution

The calculation of the after-tax return to a taxable Ontario resident Pembina investor assuming a one-year ownership, in a taxable account with the disposition at the acquisition price, and ignoring transaction costs, is as follows:

Pembina Distribution	8.60%		
Percent Currently Taxable	85%		
Ontario Tax Rate for 2003	46.41%	for other income	
Capital Gains Inclusion	50%		
	Taxable	Capital	
	Portion	Portion	Total
Pre Tax Return	7.31%	1.29%	8.60%
After Tax Portion	53.59%	76.80%	
After Tax Return	3.92%	.99%	4.91%

To allow a reader to assess the reasonableness of the assumption of purchase and sale at the same price I observed in my ATCO Pipelines Evidence that, in January 2002, trading in the Pembina units opened at \$11.31, and in December 2002, trading in Pembina units closed at \$10.90. During the past 12 months prices of Pembina units have ranged from \$12.43 to \$10.25.

Schedule 3

Comparison of Utility and Income Fund EBITDA, Page 1

The table below compares the EBITDA of an income trust and utility based on certain assumptions set out in the Rebuttal Evidence of Ms. McShane in the ATCO Pipelines proceeding, with the additional assumptions of a 3% depreciation rate, an 8% cost of debt, and 95% distribution of cash flow at the income fund level and 60% of net income at the utility level. The calculation demonstrates that the assets in the income fund do not have the same EBITDA generating capacity, likely as a result of having been purchased at a premium to the book value.

Income Trust

Balance Sheet			Source	
1 Assets	\$ 100.00	30% Debt	\$ 30.00	McShane Page 13 of 23 line 20
2		70% Equity	\$ 70.00	
Income Statement				
3 EBITDA			\$ 10.30	(line 4+ line 5) page 1319 line 18
4 Assumed depreciation	3.00%		\$ 3.00	AP Transcript 1319 line 7
5 EBIT			\$ 7.30	(line 6+ line 7)
6 Assumed cost of debt	8.00%		\$ 2.40	AP Transcript 1319 line 8
7 EBT			\$ 4.90	(line 8+ line 9)
8 Income Taxes	Tax Rate	0.00%	\$ -	AP Transcript 648 lines 3-4
9 Net Income	ROE	7.00%	<u>\$ 4.90</u>	McShane Page 13 of 23 line 25
10 Assumed Distribution	95.00% EBITDA-INT		\$ 7.51	95% (line 3 minus line 6)
11 Taxed as a mix of business income and return of capital				
12 Cash retained for internal growth			\$ 0.40	

Utility

Balance Sheet			Source	
13 Assets	\$ 100.00	60% Debt	\$ 60.00	McShane Page 13 of 23 line 21
14		40% Equity	\$ 40.00	
Income Statement				
15 EBITDA			\$ 15.46	(line 16+ line 17)
16 Assumed depreciation	3.00%		\$ 3.00	AP Transcript 1318 line 7
17 EBIT			\$ 12.46	(line 18+ line 19)
18 Assumed cost of debt	8.00%		\$ 4.80	AP Transcript 1318 line 8
19 EBT			\$ 7.66	(line 20 + line 21)
20 Income Taxes	Tax Rate	36.00%	<u>\$ 2.76</u>	
21 Net Income	ROE	12.25%	<u>\$ 4.90</u>	McShane Page 13 of 23 line 25
22 Assumed Dividend	60% of Net Income		\$ 2.94	60% (line 21) Transcript 647 line 14
23 (Subject to dividend tax credit)				AP Transcript 647 line 8
24 Cash retained for internal growth			\$ 4.96	

Schedule 3

Comparison of Utility and Income Fund EBITDA , Page 2

The table below alters the presentation from page 1 for the income fund by assuming that the purchase and sale of the utility assets or roll in to the income trust took place at a negotiated price to cause the EBITDA potential of the assets to provide the trust with a 7% net income.

Income Trust

Balance Sheet		Source	
1 Assets	\$ 150.06	30% Debt	\$ 45.02 McShane Page 13 of 23 line 20
2		70% Equity	\$ 105.04
Income Statement			
3 EBITDA			\$ 15.46 (line 4+ line 5) page 1319 line 18
4 Assumed depreciation	3.00%		\$ 4.50 AP Transcript 1319 line 7
5 EBIT			\$ 10.96 (line 6+ line 7)
6 Assumed cost of debt	8.00%		\$ 3.60 AP Transcript 1319 line 8
7 EBT			\$ 7.35 (line 8+ line 9)
8 Income Taxes Tax Rate	0.00%		\$ - AP Transcript 648 lines 3-4
9 Net Income ROE	7.00%		<u>\$ 7.35</u> McShane Page 13 of 23 line 25
10 Assumed Distribution	95.00% EBITDA-INT		\$ 11.26 95% (line 3 minus line 6)
11 Taxed as a mix of business income and return of capital			
12 Cash retained for internal growth			\$ 0.59

Utility

Balance Sheet		Source	
13 Assets	\$ 100.00	60% Debt	\$ 60.00 McShane Page 13 of 23 line 21
14		40% Equity	\$ 40.00
Income Statement			
15 EBITDA			\$ 15.46 (line 16+ line 17)
16 Assumed depreciation	3.00%		\$ 3.00 AP Transcript 1318 line 7
17 EBIT			\$ 12.46 (line 18+ line 19)
18 Assumed cost of debt	8.00%		\$ 4.80 AP Transcript 1318 line 8
19 EBT			\$ 7.66 (line 20 + line 21)
20 Income Taxes Tax Rate	36.00%		\$ 2.76
21 Net Income ROE	12.25%		<u>\$ 4.90</u> McShane Page 13 of 23 line 25
22 Assumed Dividend	60% of Net Income		\$ 2.94 60% (line 21) Transcript 647 line 14
23 (Subject to dividend tax credit)			AP Transcript 647 line 8
24 Cash retained for internal growth			\$ 4.96

Schedule 4

Capital Structure of Certain Utility Based Income Funds

The table below sets out the long term obligations and unitholders' equity of the sample funds, as at June 30, 2003. The calculation ignores the deferred items and in the case of Great Lakes a \$150 million acquisition facility accounted for as a current liability.

	Algonquin	Clean Power	Great Lakes	Northland	Pembina
Long Term Liabilities	\$ 161,372	\$ 84,425	\$ 304,550	\$ 35,307	\$ 356,069
Levelization Amounts		\$ 11,793			
Other	\$ 9,127				
Minority Interest	\$ 14,334				
Convertible Debentures					\$ 274,873
Unit Holders Equity	\$ 534,635	\$ 259,097	\$ 485,859	\$ 290,540	\$ 659,671
Total Long Term Liabilities & Equity	\$ 719,468	\$ 355,315	\$ 790,409	\$ 325,847	\$ 1,290,610
Long Term Liab.to Equity	30%	33%	63%	12%	54%
Average of 5 Trusts	38%				
All Above Liability Items/Equity	35%	37%	63%	12%	96%
Average of 5 Trusts	48%				
Great Lakes including acquisition bridge facilities of \$150 million			94%		
All Above Liabilities to Total	26%	27%	39%	11%	49%
Average of 5 Trusts	30%				

Schedule 5

Segmented Segment Performance Statistics NGTL TCPL, Page 1

The table below summarizes certain statistics drawn from the following page, which in turn were calculated from data contained in CAPP-NGTL-172 (b-d). The reader is cautioned that the total asset numbers in that reply did not equal those shown on the relevant balance sheet for TCPL for the relevant year.

Line	1997	1998	1999	2000	2001	2002	Average
Common Equity/ Total Assets							
4 Alberta		30.0%	30.3%	30.7%	31.7%	31.4%	30.8%
14 Mainline		29.5%	29.3%	29.4%	31.8%	32.5%	30.5%
25 Other		8.4%	7.1%	8.3%	16.2%	21.9%	12.4%
36 Total of Above		20.9%	23.9%	21.6%	27.5%	29.1%	24.6%
Net Income/Average Common Equity							
9 Alberta		12.2%	12.9%	12.9%	12.3%	13.2%	12.7%
19 Mainline			10.1%	9.9%	9.6%	10.6%	10.1%
30 Other			-91.1%	37.1%	15.2%	21.2%	-4.4%
41 Total of Above			-1.4%	14.0%	11.3%	13.4%	9.3%
EBIT/Total Assets							
3 Alberta		11.1%	11.9%	12.8%	13.4%	13.7%	12.6%
13 Mainline		9.7%	9.4%	10.2%	10.5%	11.4%	10.2%
24 Other		1.8%	5.6%	2.8%	10.3%	9.9%	6.1%
35 Total of Above		6.8%	9.1%	7.9%	11.2%	11.6%	9.3%

Schedule 5

Segmented Segment Performance Statistics NGTL TCPL, Page 2

The table below summarizes certain statistics drawn CAPP-NGTL-172 (b-d). The reader is cautioned that the total asset numbers in that reply did not equal those shown on the relevant balance sheet for TCPL for the relevant year.

Alberta	1997	1998	1999	2000	2001	2002	Total	Average
1 Total Assets		5,624	5,649	5,464	5,146	5,091		
2 EBIT		627	672	700	692	696		
3 EBIT/Total Assets		11.1%	11.9%	12.8%	13.4%	13.7%		12.6%
4 Common Equity/ Total Assets		30.0%	30.3%	30.7%	31.7%	31.4%		30.8%
5 Preferred Securities								
6 Preferred Shares								
7 Common Equity	1,616	1,689	1,712	1,676	1,633	1,600		
8 Net Income		201	219	219	204	214	1,057	
9 Net Income/Average Common Equity		12.2%	12.9%	12.9%	12.3%	13.2%		12.7%
10 Mainline								
11 Total Assets		9,384	9,767	9,479	9,187	8,882		
12 EBIT		909	920	964	963	1,014		
13 EBIT/Total Assets		9.7%	9.4%	10.2%	10.5%	11.4%		10.2%
14 Common Equity/ Total Assets		29.5%	29.3%	29.4%	31.8%	32.5%		30.5%
15 Preferred Securities		679	678	677	675	674		
16 Preferred Shares								
17 Common Equity		2,771	2,865	2,786	2,919	2,887		
18 Net Income		278	285	281	274	307	1,425	
19 Net Income/Average Common Equity			10.1%	9.9%	9.6%	10.6%		10.1%
20 All Equity/Total Assets		36.8%	36.3%	36.5%	39.1%	40.1%		37.8%
21 Other								
22 Total Assets		10,553	5,244	9,268	5,415	5,755		
23 EBIT		191	294	256	557	569		
24 EBIT/Total Assets		1.8%	5.6%	2.8%	10.3%	9.9%		6.1%
25 Common Equity/ Total Assets		8.4%	7.1%	8.3%	16.2%	21.9%		12.4%
26 Preferred Securities		299	282	292	-	-		
27 Preferred Shares		908	717	389	389	389		
28 Common Equity		889	371	768	877	1,260		
29 Net Income	-	118	- 574	211	125	226	- 130	
30 Net Income/Average Common Equity			-91.1%	37.1%	15.2%	21.2%		-4.4%
31 All Equity/Total Assets		19.9%	26.1%	15.6%	23.4%	28.7%		22.7%
32 Total of Above								
33 Total Assets		25,561	20,660	24,211	19,748	19,728		
34 EBIT		1,727	1,886	1,920	2,212	2,279		
35 EBIT/Total Assets		6.8%	9.1%	7.9%	11.2%	11.6%		9.3%
36 Common Equity/ Total Assets		20.9%	23.9%	21.6%	27.5%	29.1%		24.6%
37 Preferred Securities		978	960	969	675	674		
38 Preferred Shares		908	717	389	389	389		
39 Common Equity		5,349	4,948	5,230	5,429	5,747		
40 Net Income		361	- 70	711	603	747	2,352	
41 Net Income/Average Common Equity			-1.4%	14.0%	11.3%	13.4%		9.3%
42 All Equity/Total Assets		28.3%	32.1%	27.2%	32.9%	34.5%		31.0%
43 Total Assets from Balance Sheets		25,561	25,064	25,548	20,091	19,916		
44 Variance		-	- 4,404	- 1,337	- 343	- 188		