REASONS FOR DECISION

TRANSCANADA PIPELINES LIMITED

RH-2-2004

National Energy Board

Office national de l'énergie

Reasons for Decision

TransCanada PipeLines Limited

RH-2-2004

Phase II

April 2005

Cost of Capital

Canadä

National Energy Board

Reasons for Decision

In the Matter of

TransCanada PipeLines Limited

2004 Mainline Tolls and Tariff Application

RH-2-2004

Phase II

April 2005

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Abbreviations

10^9m^3	Billion cubic metres
$10^6m^3/d$	Million cubic metres per day
2004 Tolls Application	TransCanada's 2004 Mainline Tolls and Tariff Application
8.25% JSDs	TransCanada's 8.25% US $460 million junior subordinated debentures due 2047
8.50% Debentures	TransCanada's 8.50% US $200 million debentures due 2023
8.75% JSDs	TransCanada's 8.75% US $160 million junior subordinated debentures due 2045 that were redeemed in 2003
Act	*National Energy Board Act*
Alliance	Alliance Pipeline Ltd.
ANR	ANR Pipeline Company
ATWACC	After-Tax Weighted-Average Cost of Capital
Bcf/d	Billion cubic feet per day
BC System	TransCanada BC System (formerly Alberta Natural Gas Company Ltd)
Board	National Energy Board
CAPM	Capital Asset Pricing Model
CAPP	Canadian Association of Petroleum Producers
Coral	Coral Energy Canada Inc.
DBRS	Dominion Bond Rating Service
DCF	Discounted Cash Flow
EBIT	Earnings before interest and taxes
ECAPM	Empirical Capital Asset Pricing Model
Enbridge	Enbridge Pipelines Inc.
ERP	Equity Risk Premium
FERC	Federal Energy Regulatory Commission (US)

FFO	Funds from operations
Foothills	Foothills Pipe Lines Ltd.
GAAP	Generally Accepted Accounting Principles
GJ	Gigajoule
GLGT	Great Lakes Gas Transmission Company
GTN	Gas Transmission Northwest Corporation
IGUA	Industrial Gas Users Association
Iroquois	Iroquois Gas Transmission System
JSDs	Junior subordinated debentures
LDCs	Local distribution companies
LNG	Liquefied natural gas
M&NP	Maritimes & Northeast Pipeline
Mainline	TransCanada Mainline natural gas transmission system
MMcf/d	Million cubic feet per day
Moody's	Moody’s Investors Service
MRP	Market Risk Premium
NEB	National Energy Board
NGTL	Nova Gas Transmission Limited
Northern Border	Northern Border Pipeline Company
Northwest Pipeline	Northwest Pipeline Corporation
Ontario	Minister of Energy for the Province of Ontario
Phase I	Phase I of RH-2-2004
Phase II	Phase II of RH-2-2004
PNGTS	Portland Natural Gas Transmission System
Review Application	TransCanada’s application for review and variance of the RH-4-2001 Decision and related Orders (resulting in the RH-R-1-2002 Decision)
ROE	Rate of return on common equity

S&P	Standard and Poor’s
Tcf	Trillion cubic feet
Tennessee	Tennessee Gas Pipeline Company
TJ	Terajoule
TQM	Trans Québec & Maritimes Pipeline Inc.
TransCanada	TransCanada PipeLines Limited
TTF	Mainline’s Tolls Task Force
US	United States of America
Union	Union Gas Limited
Vector	Vector Pipeline (U.S.)
Viking	Viking Gas Transmission Company
WACC	Weighted-Average Cost of Capital
WCSB	Western Canada Sedimentary Basin
Westcoast	Westcoast Energy Inc., carrying on business as Duke Energy Gas Transmission Canada

Recital and Appearances

IN THE MATTER OF the *National Energy Board Act* and the regulations made thereunder; and

IN THE MATTER OF an application filed by TransCanada PipeLines Limited pursuant to Part IV of the Act, for orders fixing and approving tolls that TransCanada shall charge for transportation services provided on its Mainline natural gas transmission system between 1 January 2004 and 31 December 2004; and

IN THE MATTER OF Hearing Order RH-2-2004, as amended, setting down Phase II of the Proceeding;

Heard in Calgary, Alberta on 29 and 30 November 2004; 1, 6, 7, 8, 13, 14, 15, 16 and 17 December 2004; 17, 18, 19, 20, 21, 25, 26 and 27 January 2005; and 1, 2 and 4 February 2005;

BEFORE:

G. Caron	Presiding Member
J.S. Bulger	Member
D.W. Emes	Member

Appearances	**Participants**	**Witnesses**
C.K. Yates, Q.C.	TransCanada PipeLines Limited	S.M. Brett
W.M. Moreland		P.R. Carpenter
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		D.K. Ferguson
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		R.K. Girling
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		A.L. Kolbe
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		W.A. Langford
		P.J. Murphy
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		D.H. Gilbert
		H.W. Johnson
		R.R. Moore
		P.M.G. Nettleton

Appearances	Participants	Witnesses
	Canadian Association of Petroleum Producers (continued)	M. Pinney S.D. Reilly A. Safir G.L. Stringham P.G. Tahmazian
P.C.P. Thompson, Q.C. P.L. Fournier	Industrial Gas Users Association	
B. Troicuk	BP Canada Energy Company	
M. Stauft	Coral Energy Canada Inc.	
S. Young	Nexen Marketing	
J.C. Turchin E. Sweet	Minister of Energy for the Province of Ontario	
R. Richard	Procureur général du Québec	
M.A. Fowke R.M. Zanin	National Energy Board	

Glossary of Terms

Basis point	One-hundredth of a percentage point, used in reference to interest rates or rates of return on equity
Beta	A measure of the systematic risk of a security, which estimates the extent to which a stock's price fluctuates more or less than average when the market fluctuates
Billing determinants	Calculated values used in allocating a revenue requirement between tollpayers. Billing determinants account for both volumes and distance
Bond rating	A quality rating assigned by credit rating agencies as an indication of creditworthiness
Book value	The amount at which an item appears in the books of account and financial statements
Business risk	The risk attributed to the nature of a particular business activity (as distinct from financial risk). For pipelines, it typically includes supply, market, regulatory, competitive, and operating risks
Capital Asset Pricing Model (CAPM)	A method used to estimate the cost of equity capital by comparing the return and risk characteristics of an individual company's shares with the market average
Capital attraction standard	The aspect of the fair return standard that requires that the return of a regulated utility permit incremental capital to be attracted to the enterprise on reasonable terms and conditions
Capital structure	The way in which a business is financed; generally expressed as a percentage breakdown of the types of capital employed
Comparable earnings test	A comparison of the returns earned by companies with similar investment risk to that of the regulated utility's operations
Comparable investment standard	The aspect of the fair return standard that requires that the return of a regulated utility be comparable to the return available from the application of the invested capital to other enterprises of like risk
Competitive risk	The business risk that results from competition for customers at both the supply and market ends of a pipeline system

Cost of service	The total cost of providing service, including operating and maintenance expenses, depreciation, amortization, taxes, and return on rate base
Cross subsidization	The provision of financial support to a company's non-regulated operations by its regulated operations, or vice versa
Deemed capital structure	A notional capital structure used for rate-making purposes that may differ from a company's actual capital structure
Depreciation	A non-cash expense charged against earnings to write off the cost of an asset during its estimated useful life
Discounted Cash Flow (DCF)	A method used for estimating the cost of common equity based on the expected dividend yield of the company's shares and the expected future dividend growth rate
Economic resources	That portion of the technical resources that can be developed economically under anticipated economic conditions
Embedded cost of debt	The weighted-average historical cost of long-term debt outstanding
Equity Risk Premium (ERP)	A family of methods used for estimating the cost of common equity that includes the CAPM and ECAPM; it is based on the premise that an investment in common equity carries greater risk than an investment in either debt or preferred shares and, therefore, requires a higher return, or premium, over that required for bonds or preferred shares
Fair return standard	A standard that should be examined when setting the return allowed to a company; it is comprised of the comparable investment, financial integrity and capital attraction standards
FFO interest coverage	A financial ratio calculated as the funds from operations over gross interest incurred before subtracting capitalized interest and interest income
FFO to total debt ratio	A financial ratio calculated as the funds from operations over long term debt (including amount for operating lease debt equivalent) plus current maturities, commercial paper and other short-term borrowings
Financial integrity standard	The aspect of the fair return standard that requires that the return of a regulated utility enable the financial integrity of the regulated enterprise to be maintained

Financial risk	The risk inherent in a company's capital structure; financial risk increases as the proportion of debt increases in relation to shareholders' equity
Flow-through tax methodology	A method of estimating income taxes payable for a period based on taxable income as opposed to accounting income
Funds from operations (FFO)	The net income from a company's continuing operations plus depreciation, amortization, deferred income taxes, non-cash items, and interest expense
GH-6-96	NEB Proceeding on facilities application for the Sable Offshore Energy Project and the Maritimes & Northeast Pipeline Project (Reasons for Decision dated December 1997)
Group 1 companies	In 1985, for financial regulatory purposes, the Board divided the pipeline companies under its jurisdiction into two groups: Group 1 companies with extensive systems; and Group 2 companies with lesser operations
Interest coverage	The number of times that net income for a given year, before interest expense and income taxes, covers the annual interest expense
Investment risk	The total of a company's business risk and financial risk
K&V ATWACC Methodology	The specific ATWACC-based methodology used by Drs. Kolbe and Vilbert to estimate cost of capital
Market-to-book ratio	The ratio of the market price of a common share to its book value
Market risk	The business risk that stems from the overall size of the market and the market share that a pipeline is able to capture
Netback	The price that a producer of natural gas receives, based on the downstream market price less any charges for delivering the gas to market
Operating risk	The risk to the income-earning capability that arises from technical and operational factors
Pro forma	Describes a presentation of data, typically financial statements, where the data reflects the world on an 'as if' basis; for example, financial statements that are adjusted to reflect a projected transaction

Rate base	The amount of investment on which a return is authorized to be earned; it typically includes plant in service plus an allowance for working capital
Regulatory risk	The risk to the income-earning capability of the assets that arises due to the method of regulation of the company
Revenue requirement	The total cost of providing service, including operating and maintenance expenses, depreciation, amortization, taxes, and return on rate base
Return on rate base (return)	The return that a regulated company is authorized to earn on its approved rate base
RH-1-2001	NEB Proceeding on TransCanada's 2001-2002 Mainline Tolls and Tariff Application (Reasons for Decision dated November 2001)
RH-1-2002	NEB Proceeding on TransCanada's 2003 Mainline Tolls and Tariff Application (Reasons for Decision dated July 2003)
RH-1-70	NEB Proceeding for Mainline's tolls effective 1 January 1970 (Reasons for Decision dated December 1971)
RH-2-2004	NEB Proceedings on TransCanada's 2004 Mainline Tolls and Tariff Application (Phase I Reasons for Decision dated September 2004; Phase II Reasons for Decision dated April 2005)
RH-2-94	NEB Multi-Pipeline Cost of Capital Proceeding (Reasons for Decision dated March 1995)
RH-2-94 Formula	Formula used to determine the rate of return on common equity for certain NEB-regulated pipelines, established in the RH-2-94 Proceeding, as amended to eliminate rounding
RH-3-2004	NEB Proceeding on TransCanada's North Bay Junction Application (Reasons for Decision dated December 2004)
RH-4-2001	NEB Proceeding on TransCanada's 2001-2002 Mainline Fair Return Application concerning cost of capital for the Mainline (Reasons for Decision dated June 2002)
RH-R-1-2002	NEB Proceeding on TransCanada's Review Application of the RH-4-2001 Decision (Reasons for Decision dated February 2003)
Supply risk	The risk that the physical availability of natural gas could affect a pipeline's income-earning capability

Tariff	The terms and conditions under which the services of a pipeline are offered or provided, including the tolls, the rules and regulations, and the practices relating to specific services
Technical resources	Natural gas resources estimated by having regard for the geological prospects in an area or basin and anticipated technology. They are the sum of cumulative production (portions already produced), reserves (portions discovered, but not produced) and future resources (portions still undiscovered), with all given as marketable volumes. Marketable volumes for the future resources are determined by applying the recovery factors and surface losses applicable to pools discovered in the past
Test Year	A 12-month period used for rate-making purposes
Toll	The price charged by a pipeline company for the use of its facilities
Tolls Task Force	A joint industry task force initiated by TransCanada; its membership is comprised of a wide cross-section of the natural gas industry, including representatives of the producing, marketing, brokering and pipeline segments of the industry, provincial governments, LDCs, and industrial end-use customers
Ultimate potential	The sum of resources that have been discovered (including gas that has already been produced) and undiscovered resources that are expected to be discovered by future drilling
Utilization rate	A rate determined by dividing system throughput by pipeline design capacity, expressed as a percentage

Chapter 1

Introduction

1.1 Background

TransCanada PipeLines Limited (TransCanada) owns and operates the Mainline natural gas transmission system (Mainline), which is a high pressure natural gas transmission system that extends from the Alberta border across Saskatchewan, Manitoba, Ontario, through a portion of Quebec and connects to various downstream Canadian and international pipelines. In addition, the Mainline's integrated system includes contractual entitlements to transport natural gas on the Great Lakes Gas Transmission Company (GLGT) system from Emerson, Manitoba to St. Clair, Michigan; on the Union Gas Limited (Union) system from Dawn, Ontario to Parkway, Ontario and to Kirkwall, Ontario; and on the Trans Québec & Maritimes Pipeline Inc. (TQM) system from St-Lazare to St-Nicolas and East Hereford, all located in Quebec. Figure 1-1 shows a map of the Mainline's integrated system.

Prior to 1995, the Board generally approved pipeline tolls on an annual cost of service forward test year basis. During that period, the Mainline's cost of capital was typically examined every year as part of an annual cost of service tolls application.

In the fall of 1994, the Board held the Multi-Pipeline Cost of Capital Proceeding (RH-2-94). In the RH-2-94 Decision,[1] the Board approved a rate of return on common equity (ROE) for a benchmark pipeline, based primarily on the Equity Risk Premium (ERP) methodology. The ROE for the benchmark pipeline was set at 12.25 percent for the 1995 Test Year. The Board also adopted a formula for adjusting the ROE on an annual basis (RH-2-94 Formula).

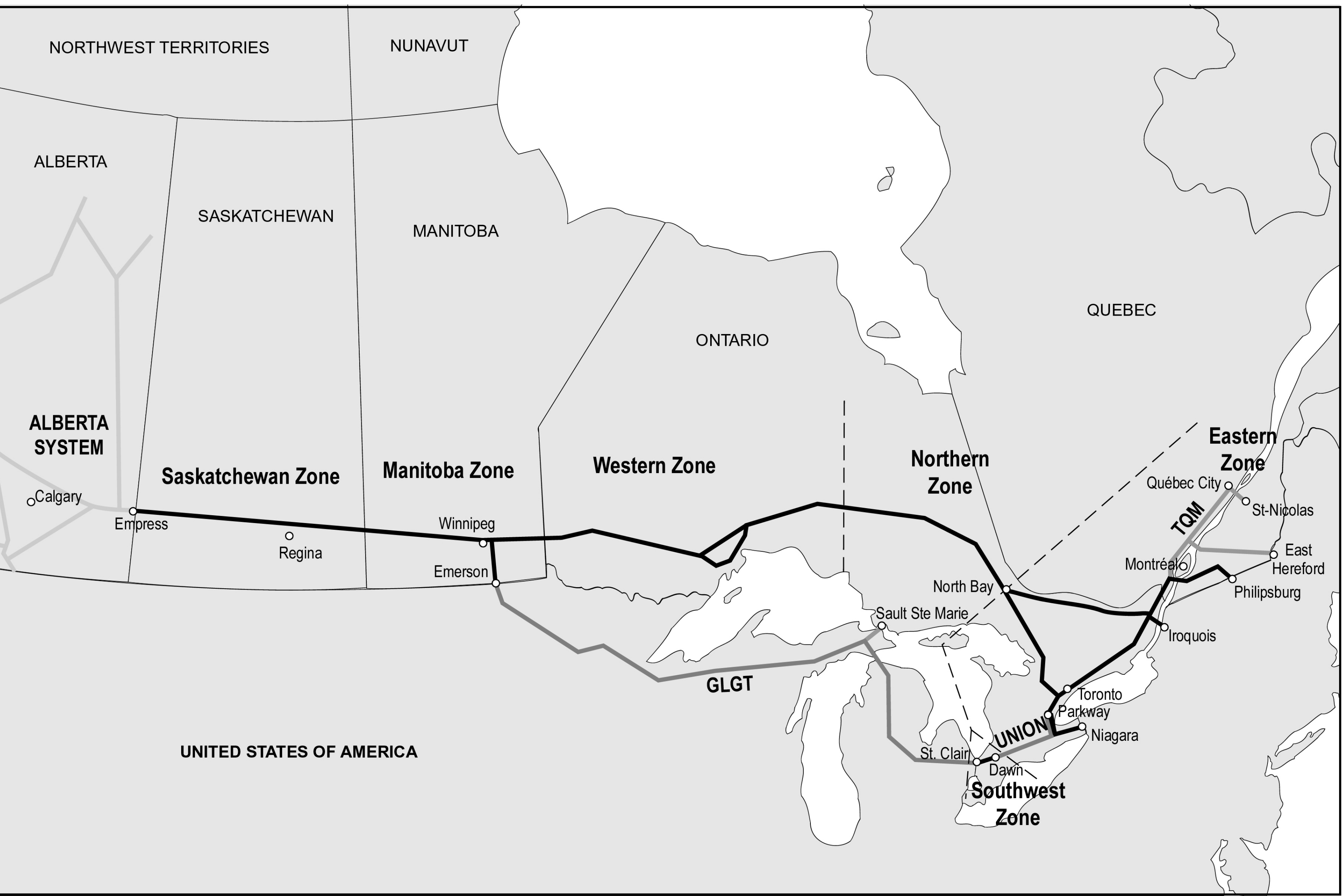
The ROEs resulting from the RH-2-94 Formula have been as follows: 11.25 percent in 1996; 10.67 percent in 1997; 10.21 percent in 1998; 9.58 percent in 1999; 9.90 percent in 2000; 9.61 percent in 2001; 9.53 percent in 2002; 9.79 percent in 2003; 9.56 percent in 2004; and 9.46 percent in 2005.

The RH-2-94 Decision stated that:

> The Board is of the view that the rate of return on common equity for the benchmark pipeline is appropriate for all of the pipelines subject to this proceeding. The Board is cognizant of the linkage between the rate of return on common equity and the pipelines' capital structures and has determined that any risk differentials between the pipelines can best be accounted for through

1 National Energy Board RH-2-94 Reasons for Decision, TransCanada PipeLines Ltd. et al. (Cost of Capital), March 1995 [hereinafter RH-2-94]

Figure 1-1
TransCanada Mainline



> adjustments to the common equity ratios rather than by making company-specific adjustments to the benchmark pipeline's rate of return on common equity.[2]

The Board decided that the overall business risk of TransCanada's Mainline, Foothills Pipe Lines Ltd. (Foothills), Alberta Natural Gas Company Ltd (now the TransCanada BC System) and TQM were such that a similar common equity ratio could be given to these four pipelines. The Board confirmed the Mainline's common equity ratio of 30 percent, which had been in place over the previous 15 years, except for 1982 and 1983 when a common equity ratio of 28 percent was deemed. The Board also indicated that given the then current cost rates, it was appropriate for TransCanada to maintain preferred shares in the Mainline's capital structure.

During the 1996-1999 period, the Mainline's tolls were approved by the Board based on the terms of the Incentive Cost Recovery and Revenue Sharing Settlement. That incentive agreement was a negotiated settlement between TransCanada and its stakeholders and incorporated a deemed common equity component of 30 percent and the ROEs resulting from the RH-2-94 Formula.

For the 2000 Test Year, the Board approved tolls for the Mainline, based on a one-year negotiated settlement, which incorporated the RH-2-94 Formula ROE on a deemed common equity component of 30 percent.

For 2001 and 2002, the Mainline's tolls reflected the terms of the two-year Mainline Service and Pricing Settlement. That settlement established a toll methodology and tariff provisions to be applicable for 2001 and 2002, and the components of the revenue requirement (other than cost of capital) to be used in the calculation of final tolls for 2001. The Board considered the 2001-2002 settlement in the RH-1-2001 Proceeding.[3]

In its 2001-2002 Fair Return Application, TransCanada sought review and variance of the RH-2-94 Decision. TransCanada proposed that the Board determine the Mainline's cost of capital for 2001 and 2002 utilizing an After-Tax Weighted-Average Cost of Capital (ATWACC) methodology. TransCanada sought approval of an ATWACC of 7.5 percent, adjusted in each of 2001 and 2002 for the difference between the market cost of debt and the embedded cost of debt of the Mainline. Alternatively, TransCanada requested that the Board establish an ROE of 12.50 percent on a deemed equity component of 40 percent. In the RH-4-2001 Decision,[4] the Board declined to adopt the ATWACC methodology and decided that the ROE resulting from the RH-2-94 Decision should continue to apply to the Mainline. The Board also concluded that the level of business risk facing the Mainline had increased since 1995 and approved an increase in the Mainline's deemed common equity ratio from 30 percent to 33 percent, effective 1 January 2001.

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2 RH-2-94, *supra*, note 1 at p. 6

3 National Energy Board RH-1-2001 Reasons for Decision, TransCanada PipeLines Ltd. (Tolls and Tariff), November 2001 [hereinafter RH-1-2001]

4 National Energy Board RH-4-2001 Reasons for Decision, TransCanada PipeLines Ltd. (Cost of Capital), June 2002 [hereinafter RH-4-2001]

On 16 September 2002, TransCanada applied for review and variance of the RH-4-2001 Decision and related Orders (Review Application). The Review Application was made on the grounds that the Board, in rendering the RH-4-2001 Decision, committed errors that raised doubts as to the correctness of the Decision. TransCanada submitted that the RH-4-2001 Decision resulted in prejudice or damage to the Mainline and its investor, TransCanada, by imposing an unfair return; prejudicing the ability of the Mainline to attract capital from TransCanada; placing the company at a competitive disadvantage; and prejudicing its ability to invest in the Canadian pipeline industry, including the Mainline and northern pipelines.

Also on 16 September 2002, TransCanada filed the Mainline's 2003 Tolls and Tariff Application, in which it requested that the 2003 return for the Mainline be determined by the Board in accordance with its disposition of the Review Application.

On 20 February 2003, the Board issued its RH-R-1-2002 Reasons for Decision,[5] in which it dismissed TransCanada's Review Application on the ground that the Review Application had not raised a doubt as to the correctness of the Board's RH-4-2001 Decision.

TransCanada sought leave to appeal the Board's RH-R-1-2002 Decision to the Federal Court of Appeal on 21 March 2003. Leave to appeal was sought on questions concerning the correctness of the legal test applied by the Board in establishing TransCanada's return and whether the Board fettered its discretion by basing the Mainline's ROE on the RH-2-94 Formula methodology. On 21 May 2003, the Federal Court of Appeal granted TransCanada's application for leave to appeal the Board's RH-R-1-2002 Decision.[6]

On 26 January 2004, TransCanada filed its 2004 Tolls and Tariff Application (2004 Tolls Application) with the Board, seeking approval of tolls on the Mainline for the period 1 January 2004 to 31 December 2004. Among other things, TransCanada sought approval of a fair return for 2004 that reflected an ROE of 11 percent on a deemed common equity ratio of 40 percent, which is equivalent to an ATWACC of 6.9 percent.

The Board issued Hearing Order RH-2-2004 on 23 March 2004, establishing a two-phase oral public hearing to consider TransCanada's 2004 Tolls Application. Phase I considered all issues raised by the 2004 Tolls Application, with the exception of cost of capital. Phase I was held in Ottawa, Ontario from 14 June 2004 to 25 June 2004. The RH-2-2004 Phase I Reasons for Decision were issued on 10 September 2004.[7]

With respect to cost of capital, the Board indicated in Hearing Order RH-2-2004 that it would be inappropriate to initiate further procedural steps in respect of Phase II until after the release of the Federal Court of Appeal Decision regarding TransCanada's appeal of the Board's RH-R-1-2002 Decision.

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5 National Energy Board RH-R-1-2002 Reasons for Decision, TransCanada PipeLines Ltd. (Review of RH-4-2001 Cost of Capital Decision), February 2003 [hereinafter RH-R-1-2002]

6 Federal Court of Appeal Docket No. 03-A-16, Order dated 23 May 2003

7 National Energy Board RH-2-2004 Reasons for Decision, TransCanada PipeLines Ltd. (Tolls and Tariff), September 2004 [hereinafter RH-2-2004 - Phase I Decision]

On 16 April 2004, the Federal Court of Appeal issued its reasons for judgment denying TransCanada's appeal.[8] On 20 April 2004, the Board sought comments from parties concerning the procedural implications of that Decision for Phase II of the RH-2-2004 Proceeding.

TransCanada advised the Board on 12 May 2004 that, in light of the Court of Appeal's Decision in *TransCanada v. NEB*, it would not seek variance from the RH-2-94 Formula for 2004. TransCanada also indicated that it maintained its 2004 Tolls Application concerning its applied-for capital structure, and it would therefore be seeking approval of the ROE stemming from the RH-2-94 Formula (9.56 percent for 2004) on 40 percent deemed equity. TransCanada filed related changes to its 2004 Tolls Application on 28 May 2004.

On 7 June 2004, the Board issued Order AO-1-RH-2-2004 setting out the procedure to be followed in Phase II, which was scheduled to commence on 25 October 2004 in Calgary, Alberta. As a result of TransCanada's decision not to seek variance from the RH-2-94 Formula for 2004, the Board removed "the appropriate rate of return on common equity (ROE) for the Mainline" from the Phase II List of Issues.

The issues that remained for the Board's consideration in Phase II were:

1. The appropriate capital structure for the Mainline;
2. The appropriate cost of debt for the Mainline, including any financial impact resulting from debt redemption; and
3. The appropriate effective date for any change to the Mainline's cost of capital.

The Canadian Association of Petroleum Producers (CAPP) filed a Notice of Motion on 4 June 2004, seeking a number of Board directions concerning the 28 May 2004 evidence of TransCanada.

After hearing from parties by way of written submission, the Board issued its ruling on CAPP's motion on 30 June 2004 (see Appendix I). The Board also issued Order AO-2-RH-2-2004, amending a number of dates in the Phase II Timetable of Events. The Board expressed the view that portions of TransCanada's evidence were not relevant to Phase II of the RH-2-2004 Proceeding, as the evidence suggested that the ROE for the Mainline in 2004 should be other than 9.56 percent. The Board directed that TransCanada file amendments to its evidence in such a way as to remove any direct or indirect inferences to an appropriate ROE other than 9.56 percent for the Mainline in 2004, by 15 July 2004.

On 13 July 2004, TransCanada sought an extension for the filing of its revised evidence, which was granted by the Board on 14 July 2004. TransCanada also requested that a number of other dates, including the start of the hearing, be amended. The Board issued Order AO-3-RH-2-2004 on 23 July 2004 and scheduled the Phase II Hearing to commence on 22 November 2004.

TransCanada filed its revised evidence on 29 July 2004. Unless otherwise noted, the information contained in these Reasons for Decision reflects TransCanada's revisions dated 29 July 2004.

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8 *TransCanada PipeLines Ltd. v. National Energy Board et al.,* [2004] F.C.A. 149 [hereinafter *TransCanada v. NEB*]

On 4 August 2004, the Board received a letter from CAPP in which it expressed the view that TransCanada had not complied with the Board's direction of 30 June 2004. The Board responded to CAPP on 12 August 2004 (see Appendix II) by reiterating its 30 June 2004 ruling that it would not allow TransCanada, through its ATWACC or other evidence, to do indirectly that which TransCanada has chosen not to do directly (that is, seek review of the RH-2-94 Formula). The Board also expressed the view that TransCanada should be allowed to present its case as it relates to the issues to be addressed in Phase II in the manner it deems appropriate, so long as the rules of natural justice are respected.

The Board issued Order AO-4-RH-2-2004 on 23 September 2004, by which it approved a revised timetable of events proposed by CAPP on 21 September 2004 and agreed upon by TransCanada and other active parties. The commencement of the Phase II Hearing was delayed one week to 29 November 2004.

The filing date for intervenor evidence was 19 October 2004. CAPP was the only intervenor to file evidence with the Board. The CAPP evidence was the subject of a motion filed by TransCanada on 12 November 2004. TransCanada requested that the Board clarify the issues to be considered in Phase II of RH-2-2004 and the parameters for the conduct and disposition of the proceeding. On 19 November 2004, the Board heard the TransCanada motion orally and issued its ruling from the Bench (see Appendix III). Among other things, the Board noted that TransCanada was seeking to have the Board consider return using a different methodology than the traditional methodology. The Board ruled that TransCanada was free to submit evidence and argue that an alternative approach should be utilized in making the determinations to be made in Phase II but that it would not, prior to hearing all of the evidence, make a determination on which approach or approaches should be used. Also, the Board agreed with TransCanada that its evidence need not be limited to examining changes since 2001 and accepted that the impact of tolls on customers is not a relevant consideration in the determination of cost of capital.

The hearing commenced on 29 November 2004 and adjourned on 17 December 2004. It reconvened on 17 January 2005 and was completed on 4 February 2005. The hearing lasted 22 days.

1.2 Overview of the Application

As noted above, the cost of capital aspects of the 2004 Tolls Application were considered in Phase II. For information on the other aspects of the 2004 Tolls Application, and the Board's Decisions on these matters, refer to the RH-2-2004 – Phase I Decision, which was issued on 10 September 2004.

With respect to cost of capital matters, TransCanada's applied-for 2004 revenue requirement included an overall rate of return on rate base of 8.93 percent, which incorporates the RH-2-94 Formula ROE of 9.56 percent for 2004 on a deemed common equity ratio of 40 percent (an increase from 33 percent to be effective 1 January 2004) and an average cost of debt of 8.73 percent.

The average applied-for cost of debt reflected TransCanada's proposed redemption of the US$ 200 million 8.50% Debentures (8.50% Debentures) and the US$ 460 million 8.25% Junior

Subordinated Debentures (8.25% JSDs) in July 2004. TransCanada submitted that junior subordinated debentures (JSDs) have comprised approximately ten percent of the Mainline's total capitalization in the form of preferred securities since 1998 and proposed to replace this ten percent preferred component of the Mainline's capitalization with seven percent unfunded debt and three percent common equity. Further information on the JSDs appears in Chapter 3; information on the cost of debt appears in Section 8.1.

Chapter 2

Legal Framework for Determining a Fair Return

In addition to the matters set out in the List of Issues for this proceeding, the methodology that the Board ought to employ in order to determine an appropriate capital structure for the Mainline was also the subject of considerable discussion in the hearing.

Position of TransCanada

TransCanada submitted that, as a matter of law, the Board is required to determine the cost of equity capital for the Mainline for 2004 using the comparable investment, capital attraction and financial integrity standards, which together comprise the fair return standard. TransCanada cited the *Northwestern Utilities Limited v. City of Edmonton,*[9] *Bluefield Waterworks & Improvement Co. v. Public Service Commission of West Virginia et al.*[10] and *Federal Power Commission v. Hope Natural Gas*[11] cases as establishing this standard.

TransCanada argued that the fair return standard does not apply narrowly to either the rate of return on equity nor to the deemed equity component of a utility's capital structure; instead it applies to the total return on capital invested. Thus, in TransCanada's view, the Board's determination of a fair return on equity capital must involve consideration of evidence pertaining to the overall equity return. This is required by the fair return standard as articulated in *Northwestern Utilities (1929)*, and was endorsed by the Federal Court of Appeal decision in *TransCanada v. NEB*[12] and the Board in its RH-1-1970 Reasons for Decision[13].

While TransCanada's evidence pertaining to total return was primarily based on the ATWACC methodology (derived from the after-tax ROE and after-tax market cost of debt), TransCanada also discussed two other forms of total return: the total equity return (the dollar amount resulting from the product of the common equity ratio, the ROE and the rate base) and the rate of return on rate base (in this instance, calculated using after-tax ROE and before-tax embedded cost of debt).

TransCanada also expressed the view that the Board should approach its consideration of the evidence from a clean slate and not limit itself to the changes in business risk since it last assessed the Mainline's cost of capital (that is, in RH-4-2001, which pertained to the 2001 and 2002 Test Years).

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9 *Northwestern Utilities Limited v. City of Edmonton,* [1929] S.C.R. 186 [hereinafter *Northwestern Utilities (1929)*]

10 Bluefield *Waterworks & Improvement Co. v. Public Service Commission of West Virginia et al.* 262 U.S. 679 (1923) [hereinafter *Bluefield*]

11 Federal *Power Commission v. Hope Natural Gas* 320 U.S. 591 (1944) [hereinafter *Hope*]

12 *TransCanada v. NEB, supra* note 8

13 National Energy Board RH-1-70 Reasons for Decision, Trans-Canada Pipe Lines Limited (Tolls Application – Phase I), December 1971 [hereinafter RH-1-70]

Position of Intervenors

CAPP

CAPP argued that there were two distinct methodologies before the Board in this proceeding, the first being the Board's traditional framework and the other being the approach put forward by TransCanada, which focuses on a total return framework.

CAPP noted that the traditional framework was used by the Board in the RH-2-94 Reasons for Decision and was subsequently confirmed by the Board in RH-4-2001. CAPP favoured the Board's traditional approach, stating that such an approach involved a separate determination of a return on equity and of a capital structure. It argued that once the Board has followed its traditional approach, it simply produces an arithmetic result to arrive at the total return. CAPP expressed the view that there is no separate determination of a fair return and cited the Federal Court of Appeal in *TransCanada v. NEB* in support of this proposition.

The starting point under the traditional framework for establishing capital structure, in CAPP's submission, is an analysis of business risk, which typically looks at changes in business risk since the last time cost of capital was assessed. CAPP argued that the Board may also look at other factors such as the pipeline's financing requirements, the pipeline's size and its ability to access capital and that these factors are afforded some weight by the Board.

In CAPP's view, the RH-4-2001 Decision should serve as the baseline and the Board should assess what changes of significance, if any, have occurred since 2001. CAPP submitted that TransCanada should have to prove whether any such changes justify a change in capital structure. While the Board's findings should be limited to changes of significance since 2001, CAPP acknowledged that the Board could look at changes prior to 2001. However, CAPP reiterated the point that the most relevant evidence in this proceeding is that evidence which points to changes that have occurred since 2001.

CAPP argued that the capital structure could not be backed out of the total return and that the essence of TransCanada's total return comparisons approach is problematic because any actual comparative analysis involves businesses for which there is both return on equity information and capital structure information. CAPP argued that this approach is flawed because, to arrive at total return, one must make a finding on the return on equity, which is not an issue in this case, as TransCanada chose not to file an application for review of the ROE stemming from the RH-2-94 Formula.

Finally, CAPP submitted that what constitutes a fair return is a matter of opinion for the Board and not a matter of law or jurisdiction. In CAPP's view, the Board is entitled to bring its own judgment, experience and expertise to bear on the question of what constitutes a fair return.

IGUA

It was submitted by the Industrial Gas Users Association (IGUA) that this case was unusual because not all the elements of cost of capital were at issue. According to IGUA, the traditional methodology involves a separate determination of the return on equity and the equity ratio. The

mathematical product of the return on equity and the equity ratio is then included as the equity return component of the revenue requirement and used to produce just and reasonable tolls.

IGUA referred to the RH-2-94 Decision, wherein the Board held that the capital structure set in that hearing would endure for an extended period of years, and more importantly, that the Board would consider a reassessment of capital structure on an individual basis, in the event of a significant change in business risk, in corporate structure or in corporate financial fundamentals. It argued that the re-examination mechanism established by the Board in 1994 has never been set aside in any subsequent decision and that it applies as a matter of principle today. IGUA contended that the traditional methodology that the Board applies calls for a party seeking a re-examination of capital structure to satisfy a significant change of circumstances test to obtain the relief that it seeks. IGUA further argued that this test exists and cannot be eliminated, without a motion to vary and set aside that feature of the RH-2-94 Decision, which has not been done in this case.

IGUA supported CAPP's suggestion that this case is simply an attempt to vary the Board's RH-4-2001 Decision and that TransCanada is trying to do indirectly what it could not do directly. IGUA submitted that in the RH-4-2001 Decision, the Board rejected the total return approach for determining the return component of just and reasonable tolls proposed by TransCanada, and also rejected that approach as a check for reasonableness on the traditional methodology.

Finally, IGUA argued that it is more appropriate for the Board to look at significant changes in business risk if the request for a change in capital structure occurs shortly after the last decision on the matter. A clean slate approach is only appropriate if the Board is dealing with a case that is occurring a substantial period of time after the ratios were initially established.

Coral

Coral Energy Canada Inc. (Coral) did not make submissions regarding which methodology the Board should employ in determining TransCanada's capital structure. Coral acknowledged that as a practical matter, it acceded to TransCanada's position that the Board should employ the clean-slate methodology but noted that this should not be taken as a concession that Coral had to do so or as disagreement with the submissions for CAPP or IGUA on that point.

Ontario

The Minister of Energy for the Province of Ontario (Ontario) raised a number of legal principles for the Board to consider in relation to TransCanada's application. Among them, Ontario submitted that the Act contains no provision that requires the Board to determine a utility's rate of return on capital; the Act requires only that all tolls be just and reasonable. Ontario cited the Federal Court of Appeal in *TransCanada v. NEB* in support of its submission that the Board's authority to determine just and reasonable tolls is not limited by any statutory direction; instead it is guided by its own judgment. Ontario also stated that customers and consumers have an interest in ensuring that the Mainline's costs are not overstated.

It was noted by Ontario that the Board has adopted a cost of service methodology, although it was open to the Board to choose one of many approaches. Ontario argued that, having chosen

this approach, the Board must faithfully determine the Mainline's costs. In cost of capital proceedings, the Board is entitled to estimate the cost of capital, including the deemed equity level of the Mainline and the Mainline's overall return on capital, on the basis of the evidence before it and its own judgment.

Views of the Board

As discussed in Chapter 1, the Mainline's 2004 ROE has already been established through the application of the RH-2-94 Formula and is not at issue in this proceeding. Determining the appropriate capital structure for the Mainline is the central issue within this proceeding; however, the central legal issue is whether the Board is legally compelled to employ a specific methodology in arriving at its determination of an appropriate capital structure for the Mainline. The submissions of parties concerning the Board's legal obligations in establishing the Mainline's capital structure raised points relating to four factors: the Act's requirement for just and reasonable tolls; cost of service regulation; the fair return standard; and the methodology to be used to determine capital structure.

Just and Reasonable Tolls

Any consideration of tolls must commence with an examination of the Board's mandate as set out in section 62 of the Act:

> All tolls shall be just and reasonable, and shall always, under substantially similar circumstances and conditions with respect to all traffic of the same description carried over the same route, be charged equally to all persons at the same rate.

The methodology that the Board must employ in setting just and reasonable tolls is not prescribed by law, nor is there any statutory obligation requiring the Board to specifically consider and establish a rate of return for the companies it regulates. The Federal Court of Appeal in *TransCanada v. NEB* held that while the Board has, for the Mainline, traditionally applied a cost of service methodology from which just and reasonable tolls are derived, the Board may adopt a different methodology for determining tolls.[14] This finding affirms a similar principle found in two previous decisions of that same Court.[15]

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14 *TransCanada v. NEB, supra* note 8 at paras. 29 and 30

15 The Court specifically affirmed its previous decision in *B.C. Hydro* (*infra* note 18) and, by doing so, also affirmed the same finding it made in *Trans Mountain* (*infra* note 16)

In *Trans Mountain Pipe Line Company v. National Energy Board et al.,*[16] the Federal Court of Appeal found that the method to be used and the factors to be considered in determining tolls:

> must be left to the discretion of the Board which possesses in that field an expertise that judges do not normally have. If, as it has clearly done in this case, the Board addresses its mind to the right question, namely, the justness and reasonableness of the tolls, and does not base its decision on clearly irrelevant considerations, it does not commit an error of law merely because it assesses the justness and reasonableness of the tolls in a manner different from that which the Court would have adopted.[17]

The broad authority of the Board was also set out in *B.C. Hydro and Power Authority v. Westcoast Transmission Company Ltd. et al*.[18] In that case, the Court noted that the regulatory system established by Part IV of the *National Energy Board Act* differs from the situation in *Northwestern Utilities (1929)* where there were specific statutory directions to the Public Utilities Board contained in the *Gas Utilities Act*. Thurlow C.J. in *B.C. Hydro* went on to state:

> There are no like provisions in Part IV of the National Energy Board Act. Under it, tolls are to be just and reasonable and may be charged only as specified in a tariff that has been filed with the Board and is in effect. The Board is given authority in the broadest of terms to make orders with respect to all matters relating to them. Plainly, the Board has authority to make orders designed to ensure that the tolls to be charged by a pipeline company will be just and reasonable. But its power in that respect is not trammelled or fettered by statutory rules or directions as to how that function is to be carried out or how the purpose is to be achieved. In particular, there are no statutory directions that, in considering whether tolls that a pipeline company proposes to charge are just and reasonable, the Board must adopt any particular accounting approach or device or that it must do so by determining cost of service and a rate base and fixing a fair return thereon.[19]

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16 *Trans Mountain Pipe Line Company v. National Energy Board et al.,* [1979] 2 F.C. 118 [hereinafter Trans Mountain]

17 *Ibid*. at para. 9

18 *B.C. Hydro and Power Authority v. Westcoast Transmission Company Ltd. et al.,* [1981] 2 F.C. 646 (C.A.) [hereinafter *B.C. Hydro*]

19 *Ibid*. at pp. 655-656

Cost of Service Regulation

It has been the Board's practice since its first rate hearing, RH-1-70, to utilize a forward test year cost of service approach to set tolls for the Mainline. This approach involves estimating the costs to be incurred by the Mainline over a future period, known as a test year. In order to recover its approved costs, the Board permits TransCanada to charge the Mainline's customers tolls. These tolls should provide TransCanada with sufficient revenue to recover the Mainline's prudently incurred costs, including its cost of capital, while at the same time "fairly allocating charges to users in relation to the costs and benefits of different services."[20]

The Federal Court of Appeal in *TransCanada v. NEB* noted that once the Board adopted the cost of service methodology "it had to faithfully determine the Mainline's costs based upon the evidence and its own sound judgment."[21] As the Court also pointed out, the largest component of the Mainline's costs is its cost of capital, which is included in the Mainline's cost of service.[22]

Rothstein J.A. in *TransCanada v. NEB* described the cost of capital to a utility this way:

> The cost of capital to a utility is equivalent to the aggregate return on investment investors require in order to keep their capital invested in the utility and to invest new capital in the utility. That return will be made in the form of interest on debt and dividends and capital appreciation on equity. Usually, that return is expressed as the rate of return investors require on their debt or equity investments.[23]

Under the Board's traditional approach, once the Board has established a rate of return on equity and debt, the two numbers are consolidated into a composite rate of return on capital, based upon the relative amounts of debt and equity in the capital structure. The Board constructs for each pipeline a capital structure, which reflects the amount of debt and equity the pipeline needs to finance its prudently incurred costs. This assessment is made with the assistance of expert evidence. In order to account for the greater or lesser risk attributed to an individual pipeline, the equity component of the capital structure is adjusted. The higher the risk attributed to a pipeline, the greater the required equity component of its capital structure. This is so, because equity serves as support for debt,

20 *TransCanada v. NEB, supra* note 8 at para. 5

21 *Ibid*. at para. 32

22 *Ibid*. at para. 5

23 *Ibid*. at para. 6

whose repayment is most often fixed. A higher level of equity provides comfort to debt lenders by improving the likelihood that their investment will be recovered in the event the corporation cannot meet its financial obligations.

Fair Return Standard

A number of parties cited case law, in addition to those cases already discussed in these Views of the Board, in their arguments regarding the determination of the cost of capital and the overall return. *Northwestern Utilities (1929)*, *Bluefield* and *Hope* are the leading cases with respect to the fair return standard. For ease of reference, the relevant passages are reproduced herein.

In *Northwestern Utilities (1929)* Lamont J. of the Supreme Court of Canada held that:

> The duty of the Board was to fix fair and reasonable rates; rates which, under the circumstances, would be fair to the consumer on the one hand, and which, on the other hand, would secure to the company a fair return for the capital invested. By a fair return is meant that the company will be allowed as large a return on the capital invested in its enterprise (which will be net to the company) as it would receive if it were investing the same amount in other securities possessing an attractiveness, stability and certainty equal to that of the company's enterprise.[24]

In *Bluefield*, the US Supreme Court stated:

> The company contends that the rate of return is too low and confiscatory. What annual rate will constitute just compensation depends upon many circumstances, and must be determined by the exercise of a fair and enlightened judgment, having regard to all relevant facts. A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit

24 *Northwestern Utilities (1929), supra* note 9 at pp. 192-193

> and enable it to raise the money necessary for the proper discharge of its public duties. A rate of return may be reasonable at one time and become too high or too low by changes affecting opportunities for investment, the money market and business conditions generally.[25]

Finally, in *Hope,* the US Supreme Court stated:

> We held in *Federal Power Commission v. Natural Gas Pipeline Co.*, that the Commission was not bound to the use of any single formula or combination of formulae in determining rates. Its ratemaking function, moreover, involves the making of "pragmatic adjustments." And when the Commission's order is challenged in the courts, the question is whether that order "viewed in its entirety" meets the requirements of the Act. Under the statutory standard of "just and reasonable" it is the result reached not the method employed which is controlling. It is not theory but the impact of the rate order which counts. If the total effect of the rate order cannot be said to be unjust and unreasonable, judicial inquiry under the Act is at an end. The fact that the method employed to reach that result may contain infirmities is not then important. Moreover, the Commission's order does not become suspect by reason of the fact that it is challenged. It is the product of expert judgment which carries a presumption of validity. And he who would upset the rate order under the Act carries the heavy burden of making a convincing showing that it is invalid because it is unjust and unreasonable in its consequences.
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> The rate-making process under the Act, i.e., the fixing of "just and reasonable" rates, involves a balancing of the investor and the consumer interests. Thus we stated in the Natural Gas Pipeline Co. Case that "regulation does not insure that the business shall produce net revenues". But such considerations aside, the investor interest has a legitimate concern with the financial integrity of the company whose rates are being regulated. From the investor or company point of view it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on the stock. By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital. The conditions

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25 *Bluefield, supra* note 10 at pp. 692-693

> under which more or less might be allowed are not important here. Nor is it important to this case to determine the various permissible ways in which any rate base on which the return is computed might be arrived at.[26] [citations omitted]

RH-1-70 was the first proceeding under Part IV of the Act in respect of tolls to be charged by TransCanada. In that Decision, the Board quoted extensively from, considered and relied upon these cases. The Board concluded as follows in respect of the framework for consideration of an appropriate rate of return for TransCanada:

> The Board is of the opinion that in respect of rate regulation, its powers and responsibilities include on the one hand a responsibility to prevent exploitation of monopolistic opportunity to charge excessive prices, and equally include on the other hand the responsibility so to conduct the regulatory function that the regulated enterprise has the opportunity to recover its reasonable expenses, and to earn a reasonable return on capital usefully employed in providing utility service. Further, it holds that to be reasonable such return should be comparable with the return available from the application of the capital to other enterprises of like risk. The Board accepts that, with qualifications, the rate of return is the concept perhaps most commonly used to project for some future period the ratio of return which has been found appropriate for the capital employed usefully by a regulated enterprise in providing utility service in a defined test period.[27]

In the RH-4-2001 Reasons for Decision, the Board set out what it viewed as the attributes which a fair return ought to have. One of the elements referred to was the appropriate balance of customer and investor interests. The Board went on to state that customer interest in rate of return matters relates most directly to the impact the approved return will have on tolls, and found this to be a relevant factor in the determination of a fair return.[28] In the RH-R-1-2002 Decision regarding TransCanada's application for review of RH-4-2001, the Board reiterated its view that the balance of interests between consumers and investors in the utility could be taken into account.[29] On appeal of this point, the Federal Court of Appeal in *TransCanada v. NEB* agreed with TransCanada's argument that the required rate of return on equity must be determined solely on the basis of the Mainline's cost of equity capital. The Court found that the impact of

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26 *Hope, supra* note 11 at pp. 602-603

27 RH-1-70, *supra* note 13 at p. 7-5

28 RH-4-2001, *supra* note 4 at pp. 11-12

29 RH-R-1-2002, *supra* note 5 at p. 1

any resulting toll increases on customers is not a relevant consideration in that determination.[30] While consumers have an interest in ensuring that the Mainline's costs are not overstated and therefore may provide evidence, it must pertain to the costs of the Mainline. The Court noted that the Board could take increases in tolls into account in considering whether the tolls should be phased in over time to ameliorate any rate shock. The Court went on to find that there was no evidence that the Board took the impact on consumers into account in making its determination of the Mainline's return on equity[31] and the appeal was denied. The Board confirmed, in its 19 November 2004 ruling on a TransCanada motion (see Appendix III), that it would not give weight to any evidence pertaining to the impact of tolls on customers in making the determinations to be made in Phase II.

The Board is of the view that the fair return standard can be articulated by having reference to three particular requirements. Specifically, a fair or reasonable return on capital should:

- be comparable to the return available from the application of the invested capital to other enterprises of like risk (the comparable investment standard);
- enable the financial integrity of the regulated enterprise to be maintained (the financial integrity standard); and
- permit incremental capital to be attracted to the enterprise on reasonable terms and conditions (the capital attraction standard).

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

Methodology to Determine Capital Structure

The preceding discussion sets out the framework for the Board's consideration of the cost of capital issues. Different views were presented regarding which approach should be used in establishing the equity thickness, and to what determinations the fair return standard would apply.

IGUA argued that the RH-2-94 Decision includes a reassessment mechanism, based on criterion of significant change in business risk, which continues to apply. IGUA further argued that a motion to vary and set aside this feature of the RH-2-94 Decision was required but was not done in this case. In the Board's view, the wording in the RH-2-94 Decision established an expectation or desire on the part of the Board that

30 *TransCanada v. NEB, supra* note 8 at paras. 35-36

31 *Ibid.* at para. 37

the capital structure decision would endure for a period of years. The Decision further indicates that the Board would be prepared to consider a reassessment of capital structure in the event of a significant change in business risk, in corporate structure or in corporate financial fundamentals. In the Board's view, the wording of the RH-2-94 Decision was not an attempt to establish a standard that, if not met, would preclude an applicant from filing an application, but rather was an indication of when the Board believed it would be appropriate to reconsider the matter. Further, the Board determined in its rulings prior to the oral portion of this hearing that it would not limit the examination of the capital structure issues to any particular methodology. Thus, in the Board's view, a motion to vary the RH-2-94 Decision was not necessary.

TransCanada argued that the Board should make its determination on capital structure by examining the total return, as the Board must, as a matter of law, establish a fair overall return for the Mainline and it is to the overall return that the fair return standard applies. From that finding, the Board can determine the Mainline's equity component. Included in this approach is TransCanada's argument that the Board ought not to limit itself to examining changes in business risk since the last time the Mainline had its cost of capital assessed by the Board, in this case, in 2001, but rather should apply a clean-slate approach.

Many of the intervenors agreed that the Board is required to provide TransCanada a fair return, but disputed TransCanada's contention that the Board is obligated to look at the overall return when setting the Mainline's capital structure. Instead, the intervenors favoured the Board's traditional approach, wherein the Board first sets a return on equity and then undertakes an assessment of business and financial risks facing the pipeline. This type of assessment typically looks at how each component of business risk has changed since the last time business risk was assessed. The final step in this approach involves the establishment of a capital structure or a common equity ratio that, when combined with the ROE, will result in an overall return commensurate with the level of business risk facing the investment. Some intervenors referred to this as a purely arithmetic function.

While some parties seemed somewhat entrenched early on in this proceeding regarding whether it was proper for a party on the opposing side to present its case according to a particular methodology, most seemed to recognize, as the hearing progressed, that the law did not prohibit the other approach. The arguments tended to focus on which approach would be more appropriate for the Board to use in coming to a decision on capital structure. Other than establishing that the return awarded to the company must meet the fair return standard, the case law provides no assistance on how this must be done.

The Board agrees with CAPP and others that historically the Board has examined the elements that go into determining total return separately rather than looking at specific evidence regarding overall return. In the RH-2-94 Multi-Pipeline Cost of Capital Decision, the Board established the ROE for a benchmark pipeline to be applied to all pipelines in that hearing. It then determined that any risk differentials between the pipelines could be accounted for by adjusting the common equity ratio.[32] To do this, it started with an analysis of each pipeline's business risk and then examined factors such as financing requirements, the pipeline's size and its ability to access financial markets.[33]

In RH-4-2001, the Board considered but rejected TransCanada's ATWACC proposal. The Board held that its assessment of how the Mainline's business risk had changed since the consideration in the RH-2-94 Proceeding justified an increase in the Mainline's common equity ratio. The Board found in RH-4-2001, as it had in RH-1-70, that the determinations made were consistent with the legal principles set out therein, which included the fair return standard, and found that the decisions would result in a fair return for the Mainline.

The Board also agrees with TransCanada that the case law establishes that it is the overall return on capital to the company which ought to meet the comparable investment, financial integrity and capital attraction requirements of the fair return standard. However, this does not, in the Board's view, require that the Board make the necessary determinations solely by means of examining evidence on overall return.

Similarly, while it is open to the Board to look at changes in business risk since a previous decision to establish an equity thickness for the Mainline, it is also not restricted to this approach. When the Board utilizes the traditional methodology, it ensures that each element that goes into the determination of the overall return is reasonable. It then uses its judgment to ensure that the resulting return is a fair return in accordance with the legal requirements. To this extent, the return on capital is not simply an arithmetic determination of various elements. The Board must always apply its judgment to ensure the return on capital is fair.

In short, as indicated by the Federal Court of Appeal in *TransCanada v. NEB,* when the Board employs a cost of service methodology, it must faithfully determine the Mainline's costs based on the evidence and its own sound judgment.[34] Beyond that, the Board is not required in law to subscribe to any particular methodology.

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32 RH-2-94, *supra* note 1 at p. 6

33 *Ibid*. at p. 25

34 *TransCanada v. NEB*, *supra* note 8 at para. 32

Thus, the Board is neither limited to considering evidence pertaining to significant changes since it last established the Mainline's capital structure, nor is it compelled to give weight to particular evidence pertaining to overall return. The Board must consider all the evidence placed before it, decide what weight that evidence should be given and apply its judgment in making the required decisions. In doing so, the Board must satisfy itself that these decisions are consistent with the Act's requirement for just and reasonable tolls and that, since the Mainline operates under cost of service regulation, the return on capital to the company meets the fair return standard. In this hearing, the Board must apply its judgment to satisfy itself that the approved common equity ratio, when combined with the Mainline's ROE of 9.56 percent, will result in a fair return on equity for TransCanada in 2004.

What weight a specific piece of evidence or methodology should be given is a matter of judgment. In the following chapters of these Reasons for Decision, the Board has summarized the evidence and position of parties and expressed views concerning the weight that such evidence ought to be afforded in making the various determinations to be made in Phase II.

Chapter 3

Junior Subordinated Debentures

TransCanada introduced junior subordinated debentures (JSDs) into the Mainline's capital structure in 1997. The JSDs were included as a cost-effective alternative to preferred shares, which had previously been part of the Mainline's capitalization. The last comprehensive cost of capital hearing for the Mainline that preceded the conversion of the preferred shares to JSDs was RH-2-94, which initially applied to the 1995 Test Year. In that Decision, the Board concluded that "given current cost rates, it is appropriate for TransCanada to maintain preferred shares in its capital structure at the present time."[35] In 1995, preferred shares represented 9.96 percent of the Mainline's capitalization.

Two tranches of JSDs were issued by TransCanada and both were fully allocated to the Mainline: an 8.75% US$ 160 million issue (8.75% JSDs) in 1997, which was redeemed in 2003; and an 8.25% US$ 460 million issue (8.25% JSDs) in 1998, which TransCanada proposed to redeem in 2004. TransCanada submitted that JSDs have comprised approximately ten percent of the Mainline's total capitalization in the form of preferred securities since 1998. It proposed to replace this ten percent preferred component of the Mainline's capitalization with seven percent unfunded debt and three percent common equity.

TransCanada requested that the Board approve the elimination of the JSDs from the Mainline's capital structure and provide explicit direction on how TransCanada is to replace the JSDs. TransCanada noted that while the Board cannot direct TransCanada to call the JSDs, it can determine whether the costs incurred by the utility can be included in the Mainline's revenue requirement and recovered in tolls.

Position of TransCanada

TransCanada cited several benefits that would result from the proposed changes to the Mainline's capitalization. The removal of the US dollar-denominated JSDs would result in a sizeable one-time foreign exchange gain to shippers, simplify the Mainline's capital structure and reduce the Mainline's future exposure to foreign exchange risk and to further changes in accounting or credit rating agency treatment.

According to TransCanada, the JSDs are neither common equity nor debt but they provide equity support to senior debt. As a result, the proposed redemption of JSDs and their partial replacement with senior debt would require an offsetting increase in common equity in the Mainline's capital structure. TransCanada suggested that credit rating agencies typically give hybrid securities like JSDs 30 percent to 40 percent equity credit. The proposed Mainline capital structure for 2004 would reflect this treatment, incorporating an increase of seven percent senior debt and an increase of three percent common equity. TransCanada contended that it was not

35 RH-2-94, *supra* note 1 at p. 25

appropriate to redeem the JSDs and replace them with a like instrument, as the marketplace for these securities does not exist in Canada at this time.

TransCanada submitted that developments in credit assessment and accounting standards required changes in the preferred component of the Mainline's capital structure. According to TransCanada, credit rating agencies are taking a more critical view of the credit support that hybrid securities, such as JSDs, provide to senior debt. Further, the Canadian Accounting Standards Board announced that JSDs would likely be classified as debt under Generally Accepted Accounting Principles (GAAP) by the end of 2004. TransCanada submitted that the credit supporting attributes of JSDs have weakened and that these instruments are no longer well suited for their intended purpose of providing credit support.

If the Board were to approve a 40 percent equity ratio for the Mainline, in TransCanada's view, no further adjustments to the deemed equity ratio to reflect the redemption of the JSDs would be required. However, if the Board determined that the appropriate capital structure should include less than 40 percent equity, then the Board should make a determination with respect to the equity credit warranted as a result of the JSDs' redemption. TransCanada suggested that if the JSDs are redeemed, the equity ratio of the Mainline should be increased from 33 to 36 percent regardless of any findings the Board may make on business risk. TransCanada viewed a capital structure (assuming redemption of JSDs) consisting of 36 percent common equity and 64 percent senior debt as a different characterization of the status quo.

It its initial application, TransCanada proposed to make the effective date for redemption of the JSDs 30 June 2004. However, TransCanada acknowledged at the end of January 2005 that the JSDs had not been redeemed. TransCanada argued that the Board could provide guidance on this matter, while not purporting to make a decision in respect of 2005.

In response to CAPP's contention that the retirement of preferred securities was factored into the RH-4-2001 Decision, TransCanada noted that the Decision makes no mention of preferred securities and pointed out that the three percent increase in common equity approved by the Board in RH-4-2001 was attributed to increased business risk.

Position of Intervenors

CAPP submitted that the JSDs were treated as debt by the Board in its RH-4-2001 Decision, and should continue to be treated as debt. CAPP further submitted that JSDs are interest-bearing instruments and are in substance debt. It argued that, although there is potentially a large one-time foreign exchange gain as a result of redeeming the JSDs, the replacement of the JSDs with a combination of debt and common equity is a more costly solution. Therefore, CAPP submitted that TransCanada should either leave the JSDs in place or replace them with a similar instrument. The terms and conditions of the replacement debt, in CAPP's view, is a matter for the prudent exercise of management judgment.

CAPP rejected TransCanada's contention that there is a ten percent preferred securities layer in the Mainline's capital structure and noted that the amount of JSDs in the Mainline's capital structure is a matter of arithmetic, based on the dollar value of JSDs that happen to be in the

capital structure at any given time. CAPP noted that JSDs currently comprise approximately 8.5 percent of the Mainline's capitalization.

It was noted by CAPP that TransCanada did not seek approval from the Board when it redeemed the 8.75% JSDs in 2003, and that this redemption had an effect on the capital structure of the Mainline. CAPP further noted that TransCanada had intended to discuss this issue with the Mainline's Tolls Task Force (TTF) in due course, but chose to act unilaterally. CAPP took issue with TransCanada's position that the company was acting altruistically to the benefit of shippers in redeeming the JSDs in 2003. CAPP contended there was no urgency in making this change to capital structure, and the TTF should have been consulted. CAPP further suggested that the motivation for this action was to move the Mainline out of a pre-funded position, which benefited TransCanada.

CAPP indicated that JSDs rank behind senior debt both in terms of interest and any winding up of claims in a bankruptcy proceeding. CAPP pointed to a presentation where Standard and Poor's (S&P) had stated that the Mainline's capital structure is comprised of 33 percent common equity and 67 percent debt, in support of CAPP's view that S&P does not acknowledge equity credit for the JSDs. Further, CAPP submitted that the Board was aware of the Mainline's previous use of preferred shares but did not regard them as common equity and specifically set the Mainline's capital structure at 33 percent common equity and 67 percent debt, including the JSDs in the debt component, with no equity characteristics. CAPP contended that the Board recognized that within the debt class there were a variety of different types of debt, but all were classified as debt.

The fact that the JSDs had not been redeemed as of January 2005 made it difficult, in CAPP's view, to retroactively apply for their redemption. CAPP suggested that the benefits, if any, of a change to capital structure would have to be applied on a prospective basis.

IGUA and Coral endorsed the submissions of CAPP on the JSDs. Coral also suggested that the Board has the option of leaving it to TransCanada to manage the JSDs allocated to the Mainline or of approving TransCanada's request to replace the JSDs with senior debt and common equity. Coral submitted that the latter option would leave shippers worse off.

Ontario expressed the view that as redemption of the JSDs had not taken place during the 2004 Test Year, it would be improper for the Board to make any adjustment to the Mainline's deemed equity structure in respect of the JSDs for 2004.

Views of the Board

The Board is of the view that hybrid securities, like the JSDs, may provide credit support to senior debt. However, it appears that, as TransCanada has acknowledged, the credit support provided by the JSDs has declined since they were issued in the late 1990s. The Board notes there is no consensus amongst credit rating agencies regarding the precise amount of equity credit given to TransCanada's JSDs.

The Board notes that in the RH-4-2001 Decision, the JSDs were considered part of the Mainline's debt,[36] and that their cost rate was factored into the calculation of the overall cost of debt for the Mainline. The Board views coverage of all fixed charges, whether interest on debt or dividends on preferred shares, as equally important. Therefore, it is appropriate to treat all fixed income securities as forming part of the debt components of the Mainline's capital structure. This is accomplished by focusing on establishing the appropriate equity ratio for the Mainline, rather than making specific findings on the composition of the debt.

The Board notes that in the past, it has assessed the business risk of the pipelines it regulates and reflected these relative risks through the deemed common equity component of the pipelines' capital structures. For example, in the RH-2-94 Decision, the Board stated:

> The Board recognizes that the gas pipelines have some individual characteristics, described in its views above, which differentiate one from another. On balance, however, the Board is of the view that the overall business risks of TransCanada, Foothills, ANG and TQM balance out such that a similar common equity ratio can be given to these four pipelines. Accordingly, the Board approves a common equity ratio of 30% for TransCanada, Foothills, ANG and TQM.[37]

Also in RH-2-94, having set a common equity ratio of 30 percent for the Mainline, the Board approved the maintenance of preferred shares in the Mainline's capital structure, noting that:

> With respect to preferred shares, the Board concludes that, given current cost rates, it is appropriate for TransCanada to maintain preferred shares in its capital structure at the present time.[38]

In the Board's view, the issue related to preferred securities has been one of cost efficiency, not one of credit support, as the same common equity ratio was approved in RH-2-94 for pipelines of similar risk, regardless of whether the pipelines had preferred shares in their capital structures. Consistent with this view, the Board will, in this instance, set a common equity ratio that is appropriate when combined only with debt. Should hybrid securities form part of this debt and provide further support for senior debt, the Board would consider this reasonable so long as it is cost effective. The Board views the minimization of costs, including financing costs, as an objective of reasonable and prudent management.

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36 RH-4-2001, *supra* note 4 at p. 59

37 RH-2-94, *supra* note 1 at p. 27

38 *Ibid*. at p. 25

While the Board notes TransCanada's submission concerning the potential for a large one-time foreign exchange gain to be realized through redemption of the JSDs, the Board is of the view that the long-term benefits to Mainline shippers are less certain, given uncertainty over the future cost rates of the securities that would replace the JSDs. TransCanada stated that its goals were to simplify the Mainline's capital structure, reduce its exposure to currency fluctuations and accommodate changes in accounting standards. The Board is of the view that these are all reasonable objectives, but that TransCanada can manage the associated risks without the Board providing an express direction in regard to the redemption or retention of the JSDs.

The Board is not prepared to direct that the JSDs be eliminated from the Mainline's capital structure. The JSDs are as cost effective as the rest of the Mainline's embedded senior debt, and therefore, the Board sees no reason to direct that they be removed from the Mainline's capital structure. The Board also notes that, although TransCanada's application was for the 2004 Test Year, the company did not redeem, although it could have redeemed, the JSDs in 2004. Therefore, for rate-making purposes, the JSDs should continue to form part of the Mainline's funded debt for 2004.

TransCanada has the discretion to redeem the JSDs or maintain them in the Mainline's capital structure. The Board will continue to treat the JSDs as part of the Mainline's debt. On a prospective basis, should the JSDs be redeemed, the Board anticipates that no changes to the Mainline's equity ratio would be warranted. As always, TransCanada's future decisions concerning the JSDs may be subject to scrutiny on the basis of prudence.

Decision

The 8.25% JSDs shall remain part of the Mainline's funded debt for the 2004 Test Year.

Chapter 4

Business Risk

The business risk of a pipeline is a key determinant in the analysis of an appropriate capital structure. In these Reasons for Decision, the discussion of business risk has been divided into an assessment of supply risk, market risk, regulatory risk, competitive risk and operating risk. The various forms of risk are related, and the boundaries between them are subjective. What one party may consider a source of market risk may be viewed by another as part of competitive risk. To avoid duplication, each concept is presented under only one form of risk, although it might have been discussed by parties under various forms.

4.1 Approach to Business Risk

Position of TransCanada

TransCanada submitted that the determination of capital structure must be made on the basis of all the evidence relating to the Mainline in 2004, not just changes since RH-4-2001. However, it acknowledged that in some areas, notably with regard to supply, changes since RH-4-2001 are relevant. TransCanada argued that the Board does not have to identify changes since 2001 or conclude that the Board was wrong in RH-4-2001 to grant TransCanada's request in this proceeding.

Position of Intervenors

CAPP contended that the relevant focus of this proceeding is to determine what of significance has changed since RH-4-2001 to justify a change in capital structure, since issues which arose prior to that had been dealt with in that proceeding. CAPP submitted that TransCanada's key messages related to business risk are the same as those which were presented in RH-4-2001. CAPP claimed that issues around supply, markets, competition and regulation have not raised the Mainline's business risk since 2001 and submitted that TransCanada has provided nothing to demonstrate any significant change since that time.

IGUA argued that the significant change of circumstances test identified in the RH-2-94 Decision should apply to this proceeding and contended that there is insufficient evidence to show a significant change since RH-4-2001.

Coral submitted that TransCanada has not made a case that there has been any meaningful change in its business risk since 2001 or that the Board misconceived the situation in its RH-4-2001 Decision.

Ontario argued that the changes in business risk since RH-4-2001 that were identified by TransCanada, that is, changes related to supply, market growth, development of liquefied natural gas (LNG) alternatives and the contractual underpinnings of the Mainline, have not materially increased since RH-4-2001.

4.2 Supply Risk

Supply risk is the risk that the physical availability of natural gas could affect the Mainline's income-earning capability.

Position of TransCanada

TransCanada argued that supply risk is a significant long-term issue because there is flat to declining supply from the Western Canada Sedimentary Basin (WCSB) and there is competition for that supply. The issue of competition for supply is also discussed in Section 4.5, Competitive Risk.

To explore what TransCanada viewed as a plausible range of natural gas supply and Mainline throughput outcomes, TransCanada prepared a throughput study which took into consideration scenarios for conventional and unconventional WCSB supply, Mackenzie Delta supply, western Canadian gas demand, export capacity expansions and allocation of available supply to ex-WCSB pipelines, including the Mainline. The throughput study initially consisted of three cases: Base, Low and High. Following information requests, the Alaskan-in and Distress cases were also added.

Conventional Supply

TransCanada stated that there is a high probability that conventional production has peaked or will peak in the next several years. TransCanada suggested that the sustainability of supply from the WCSB in the long term is primarily dependent on the ultimate potential and presented estimates of conventional economic resources ranging from 7 082 10^9m^3 (250 Tcf) for the Low Case to 8 498 10^9m^3 (300 Tcf) in the High Case. TransCanada's estimates for economic and technical resources are shown in Table 4-1.[39]

Table 4-1
TransCanada's Estimate of Conventional WCSB Ultimate Potential
10^9m^3 (Tcf)

	Base Case	Low Case	High Case
Technical Resources	8 527 (301)	7 620 (269)	9 405 (332)
Economic Resources	7 790 (275)	7 082 (250)	8 498 (300)

TransCanada argued that its main point of divergence with CAPP with respect to conventional supply was the plausibility of TransCanada's Low Case. TransCanada stated that the Low Case in the throughput study is primarily a low ultimate potential case and is not driven by a change in the natural gas price forecast from the Base Case. TransCanada asserted that CAPP's statement that the Low Case for conventional ultimate potential has a high probability of being exceeded

39 A definition of technical and of economic resources appears in the glossary of terms.

should be rejected because the ultimate potential used in the Low Case is well within the range of estimates of other organizations.[40] Based on recent WCSB performance and recent assessments of ultimate potential, TransCanada stated that outcomes at the low end of the plausible range of outcomes are more likely today than in 1995. Therefore, supply cases at the lower end of the range should be given serious consideration in an assessment of business risks.

Unconventional and Northern Supply

TransCanada submitted that both unconventional gas (expected to be comprised mainly of coalbed methane and tight gas[41]) and northern gas have higher risk profiles than conventional supply. As there is currently no significant Canadian unconventional production, future production levels represent a critical forecast uncertainty. Although these sources of supply are of higher risk than conventional sources, large volumes have been included in the Base Case. TransCanada noted that gas from the Mackenzie Delta is included in all throughput study cases even though the Mackenzie Valley Pipeline has not received regulatory approval.

While TransCanada viewed the probability of Alaskan gas coming on-stream as greater now than in the past, it submitted that there is still considerable uncertainty about whether that gas would flow on the Mainline. Further, TransCanada stated that there is a risk that LNG development may capture the market to which Alaskan gas would otherwise flow. Therefore, it viewed Alaskan gas as too speculative to include in any of the initial throughput study cases.

TransCanada claimed that its purchase of the remaining shares of Foothills was an option to increase the likelihood of TransCanada's involvement in the North. While it may directionally improve the probability that the Mainline captures northern gas, it does not increase the probability that an Alaskan pipeline will proceed.

Capacity Additions and Allocation of Natural Gas Supply

Once total supply was determined for each of the throughput study cases, natural gas demand in western Canada was deducted to arrive at an estimated volume available for export from the region. Next, TransCanada estimated any additional pipeline capacity additions necessary to keep overall pipeline utilization from western Canada at approximately 90 percent. In the Low, Base and High Cases, these additions totalled 9.9 $10^6 m^3/d$ (350 MMcf/d), 15.6 $10^6 m^3/d$ (550 MMcf/d) and 56.7 $10^6 m^3/d$ (2.0 Bcf/d) respectively. The Alaska-in case assumed that a total of 83.6 $10^6 m^3/d$ (2.95 Bcf/d) of new ex-WCSB export capacity would be in service by 2011-2012 to transport WCSB and northern gas. New pipeline capacity was assumed to come into service supported by 15 year firm contracts.

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40 TransCanada cited: National Energy Board - Canada's Energy Future: Scenarios for Supply and Demand to 2025 (2003) and National Energy Board - Canada's Conventional Natural Gas Resources: A Status Report (April 2004); Canadian Energy Research Institute; and the Canadian Gas Potential Committee.

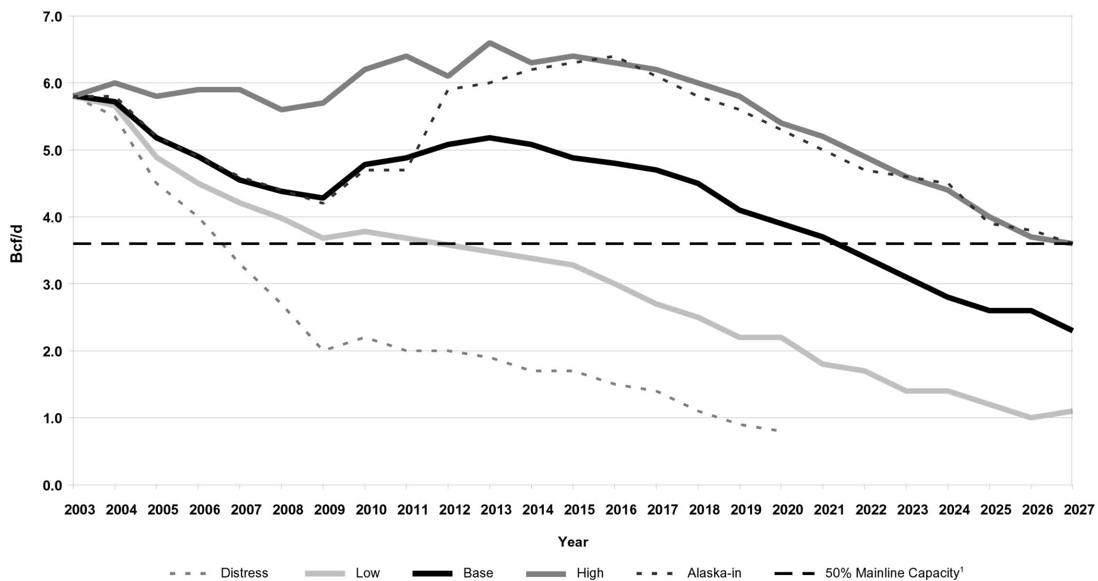
41 Coalbed methane is natural gas, primarily methane, found in most coal seams. The methane is created during coalification, the natural process that converts organic matter into coal over time. Tight gas is natural gas contained in low permeability reservoirs.

TransCanada allocated export volumes first to pipelines with firm contracts and then to the pipelines with the highest netbacks to western Canada. TransCanada applied historical utilization factors to set the upper limit of flow on each pipeline and then allocated the remainder of the supply to the Mainline. At the time that western Canadian export volumes begin to decline, throughput on all pipelines not protected by long-term firm transportation contracts was assumed to decline proportionally to the pipeline's share of ex-WCSB export volumes. TransCanada submitted that this assumption is likely to lead to higher assumed throughput on the Mainline than will actually occur given that it views the Mainline as the swing pipeline, attracting only throughput that does not have the option of flowing on other systems.

Results of Throughput Analysis

The resulting total western supply and Mainline throughput forecasts for selected years are presented in Appendix IV. The throughput forecasts for the entire period are also illustrated in Figure 4-1. In the Base Case, total supply available to the Mainline is expected to decline until northern gas commences flow in 2010 and then resume its decline after 2013. In the Low Case, supply available to the Mainline falls steadily over the forecast period.

Figure 4-1
TransCanada's Throughput Forecasts



1 The horizontal line in Figure 4-1 indicates 50 percent of Mainline capacity. The time at which throughput declines to 50 percent of capacity was raised by CAPP in this proceeding and relied on by TransCanada in RH-1-2002 as an indicator of the Mainline's economic life.

TransCanada argued that CAPP's throughput sensitivity, which removed the assumption that the Mainline offered the lowest netbacks and showed no additional capacity being built except in the High Case, resulted in unacceptably high utilization rates, with aggregate utilization out of the basin exceeding 96 percent in the High Case.

Changes in Supply Risk since RH-4-2001

Given the recent experience of little production growth despite high prices, TransCanada contended that supply risk has increased since RH-4-2001. TransCanada also submitted that forecasters are now expecting lower levels of peak production as well as lower ultimate resources. TransCanada pointed out that its Base Case WCSB peak production is now forecast to be 482 $10^6 m^3/d$ (17 Bcf/d) compared with 555 $10^6 m^3/d$ (19.6 Bcf/d) in its Base Case presented in RH-4-2001. TransCanada's economic ultimate potential estimates have also been reduced since RH-4-2001. Overall, the Base Case Mainline throughput for the year 2020 is now forecast to be 37 percent lower than it was at the time of RH-4-2001.

Depreciation and Supply Risk

TransCanada acknowledged that the Mainline's depreciation rate was increased in 2001 and 2002 as part of a negotiated settlement, and in 2003 through the RH-1-2002 Decision.[42] With respect to the suggestion that the higher depreciation rates approved since 2001 offset supply risk, TransCanada noted that depreciation does not provide any compensation for bearing the risk that the Mainline may not be able to recover its prudently incurred costs, including the return on investment, over its economic life. TransCanada agreed with the Board's statement in the RH-4-2001 Decision that depreciation expense is intended to allow recovery of capital over the economic life of the assets, while return on capital compensates for the risk that the economic life and other depreciation parameters may be wrong.[43]

TransCanada suggested that the assumption that goes into the determination of return is that the depreciation rate is set correctly, so that the return of capital will occur over the economic life of the asset. Accordingly, TransCanada submitted that setting the depreciation rate correctly does not compensate for a fundamental increase in business risk, although setting a depreciation rate that is either too high or too low affects business risk.

While TransCanada accepted that risk is higher if depreciation is assessed infrequently than if it is assessed frequently, it contended that regular assessment of the depreciation rates does not mitigate risk. TransCanada stated that even if the depreciation rate is correct, regular updates do not eliminate future uncertainty associated with it at present.

In addition, TransCanada suggested that there is a risk that the depreciation rate will not be changed when circumstances warrant. Further, TransCanada contended that even if the regulator were willing to allow higher depreciation rates in the case of a deterioration in the supply outlook, the compounding effect on tolls of lower throughput and higher depreciation rates may make tolls uncompetitive.

TransCanada acknowledged that the level of plant remaining undepreciated is potentially relevant to an assessment of business risk and there would not be any recovery risk left if the asset was fully depreciated. However, TransCanada suggested that there is considerable

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42 National Energy Board RH-1-2002 Reasons for Decision, TransCanada PipeLines Ltd. (Tolls and Tariff), July 2003 [hereinafter RH-1-2002]

43 RH-4-2001, *supra* note 4 at p. 28

uncertainty concerning the level of plant remaining at the end of the assumed economic life and the amount of unrecovered capital could still be considerable at that point.

In addition, TransCanada contended that the depreciation rates set in the RH-1-2002 Decision are, if anything, conservative because they contain no allowance for negative terminal salvage costs and because the existing 25 year economic planning horizon is optimistic.

Position of Intervenors

CAPP acknowledged that TransCanada's Base Case forecast of total conventional supply was reasonable and reflective of current knowledge. CAPP considered the High Case as achievable under the right conditions. However, CAPP was of the view that, given current and anticipated levels of demand and correspondingly strong prices, as well as the decline experienced by various US basins, the possibility of conventional supply volumes being lower than TransCanada's Low Case was remote.

While CAPP agreed that views on supply have changed since RH-4-2001, CAPP stated that this does not by itself translate into increased business risk for TransCanada. CAPP submitted that the more rapid recovery of capital resulting from increased depreciation rates that were approved in RH-1-2002 for 2003, and agreed to in a negotiated settlement for 2001 and 2002, offset the change in supply and throughput outlook since RH-4-2001. CAPP stated that the Board identified two factors for shortening the capital recovery period in RH-1-2002: the potential for lower supply outcomes and the comparability with competitors' depreciation lives. Consequently, CAPP contended that shippers should not have to pay for the same supply risk twice, once through higher depreciation and again through higher return on capital.

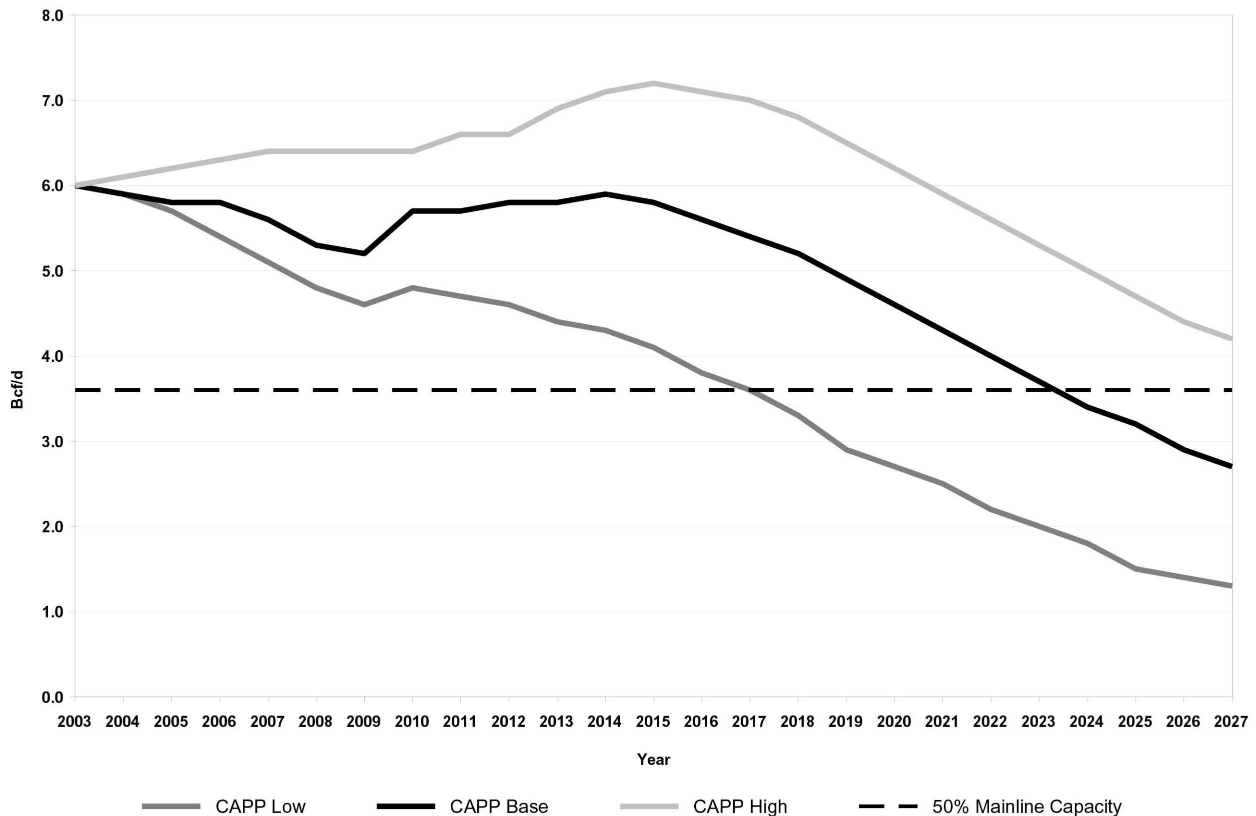
It was noted by CAPP that in the RH-1-2002 Decision, the Board stated its expectation that depreciation would be assessed regularly. CAPP suggested that if supply declines more rapidly than anticipated, depreciation rates could be increased in response. CAPP observed that as the pipeline depreciates, the level of capital remaining to be recovered declines, thereby reducing business risk.

CAPP also considered that the development of the North (Mackenzie Valley and Alaska), the development of unconventional gas and the shift to deeper parts of the WCSB are positive developments which indicate that the market is working and supply is responding.

CAPP did not view Alaskan gas as too speculative to consider in this proceeding but acknowledged that the timing of this gas coming on stream would depend on prevailing market conditions. CAPP further acknowledged that producers are working on many options with respect to the flow of Alaskan gas. CAPP contended that TransCanada's actions in regard to Alaska, including the purchase of Foothills, suggest that Alaskan gas should be given greater weight as upside potential since it, along with unconventional gas, represents a significant upside opportunity for which TransCanada is well positioned to compete. CAPP stated that Alaskan gas was included in the throughput study in 2001 and the probability of the Alaska pipeline proceeding and of Alaskan gas flowing through the Mainline is higher now than it was in 2001. CAPP argued that TransCanada had minimized this upside potential. However, CAPP submitted that its view of supply risk does not depend on the inclusion of Alaskan gas.

With respect to TransCanada's throughput study, CAPP contended that the assumptions that the Mainline offers the lowest netback, and that additional pipeline capacity will be added in all cases, result in conservative estimates of Mainline throughput. CAPP prepared sensitivities to TransCanada's Base, High and Low Cases, removing TransCanada's assumption that the Mainline offers the lowest netback. Volumes were allocated to each pipeline based on historical throughput, calculated using 2000/01, 2001/02 and 2002/03 data, and assuming that no additional capacity would be added except 14.2 $10^6 m^3/d$ (500 MMcf/d) in the High Case. All other assumptions were those used by TransCanada in its throughput study. The results are shown in Figure 4-2 and the resulting total western supply and Mainline throughput sensitivities for selected years are presented in Appendix IV. The horizontal line in Figure 4-2 indicates 50 percent of Mainline capacity. CAPP noted that the time at which throughput declines to 50 percent of capacity was relied on by TransCanada in RH-1-2002 as an indicator of the Mainline's economic life.

Figure 4-2
CAPP's Throughput Sensitivities



The dates at which the Mainline throughput reaches 50 percent of capacity under TransCanada's five cases and the three CAPP sensitivities are shown in Table 4-2.

Table 4-2
Year when Mainline Throughput Declines to 50 percent of Capacity

	Distress	Low	Base	High	Alaska-in
TransCanada's Forecasts	2007	2012	2022	2027	2027
CAPP's Sensitivities	n.a.[1]	2017	2024	>2027	n.a.

1 Not available

Ontario argued that the probability of Alaskan gas flowing has increased and therefore the exclusion of Alaskan gas in TransCanada's throughput study was unreasonably negative. Ontario submitted that TransCanada's view of Alaskan gas being too speculative to consider in this proceeding was inconsistent with its action in other forums where it expressed more optimism.

4.3 Market Risk

Market risk has two aspects: the business risk that results from the overall size of the market and that which results from the pipeline's ability to capture market share. In these Reasons for Decision, the issue of market share is discussed under Section 4.5, Competitive Risk.

Position of TransCanada

While TransCanada stated that it is loss of market share due to competition, not shrinking demand, which drives its assessment of market risk, it did point out that projections of natural gas demand growth to 2015 are lower now than at the time of the RH-4-2001 Proceeding.

Position of Intervenors

CAPP suggested that the Mainline's market risk is low given that the North American gas market is growing and that much of that growth is in areas served by the Mainline. According to CAPP, expanding markets suggest the downturn in the Mainline's throughput over the last several years will prove only temporary.

Ontario argued that the possibility of uncertainty in demand growth in downstream markets was identified in RH-4-2001 and is not a new risk. Ontario pointed out that TransCanada is forecasting strong growth in natural gas markets.

4.4 Regulatory Risk

Regulatory risk is the risk to the income-earning capability of the assets that arises due to the method of regulation of the company.

Position of TransCanada

TransCanada expressed the view that the Mainline's regulatory risk has increased through the 1980s and 1990s with the evolution of the Board's policy on the certification of new pipelines. TransCanada contended that regulators' and policy makers' encouragement of greater

competition and acceptance of the efficacy of market forces resulted in the approval of the Alliance Pipeline Ltd. (Alliance) facilities in advance of available supply and represented a fundamental change in the pipeline industry.

TransCanada maintained that, while it is true that the Mainline has not seen the costs of underutilization reflected in its earnings, if supply becomes inadequate or competitive alternatives become available, tolls may increase to the point where load is driven off the system and bypasses of the Mainline become economic. Regulators may be unable to mitigate the risk if tolls reach the point of driving load off the system. Further, TransCanada pointed to the Board's RH-1-2001 Decision, which stated that "some sharing of risk between TransCanada and its shippers may be appropriate if considered on a prospective basis",[44] in support of the view that there is no guarantee that the regulator will continue to employ a traditional cost of service model or that the Mainline will not be required to share in the costs of underutilization in the future. Additionally, the last decade has seen widespread use of negotiated settlements, many of which include features intended to substitute certain aspects of competitive markets for the traditional cost of service model.

With respect to CAPP's contention that regulatory risk may have declined since 2001 because TransCanada is no longer discussing a new regulatory model, TransCanada argued that no change in the regulatory model could have happened without regulatory approval and the proposal was never put before the regulator because of universal opposition.

Position of Intervenors

CAPP contended that there has been no substantial change in regulatory risk since 2001 and any minor regulatory uncertainty faced by the Mainline before 2001 was reflected in the RH-4-2001 Decision. If anything, CAPP asserted that regulatory risk has decreased because at the time of RH-4-2001, TransCanada and its stakeholders were discussing a new business and regulatory model for the Mainline. The uncertainty created by that discussion is now gone.

CAPP expressed the view that the NEB regulatory approach not only covers short-term regulatory risk, but also provides a long-term predictable and secure regulatory foundation for the Mainline while adapting to change in a prospective and balanced manner. CAPP suggested that the annual toll adjustments and predictable returns are the manifestation of a long-term bargain. Features such as cost of service revenue protection, deferral accounts, rolled-in pipeline costs for expansions and absence of volume or load factor risk limit the business risk faced by the Mainline due to regulatory uncertainty, as they have for the past 15 years or more.

Ontario also asserted that any regulatory changes were well known at the time of RH-4-2001 and there have been no developments since that time to increase the Mainline's regulatory risk.

44 RH-1-2001, *supra* note 3 at p. 14

4.5 Competitive Risk

Competitive risk refers to the business risk that results from competition for customers at both the supply and market ends of the pipeline system. While it directly affects business risk by providing customers with alternatives to ship or purchase natural gas, it also indirectly affects market and supply risk. In these Reasons for Decision, all aspects of risk associated with competition for customers are discussed as part of competitive risk.

For ease of reference, Figure 4-3 presents a map of selected Canadian and US pipelines referred to in this section and in Chapter 5 of these Reasons for Decision.

Position of TransCanada

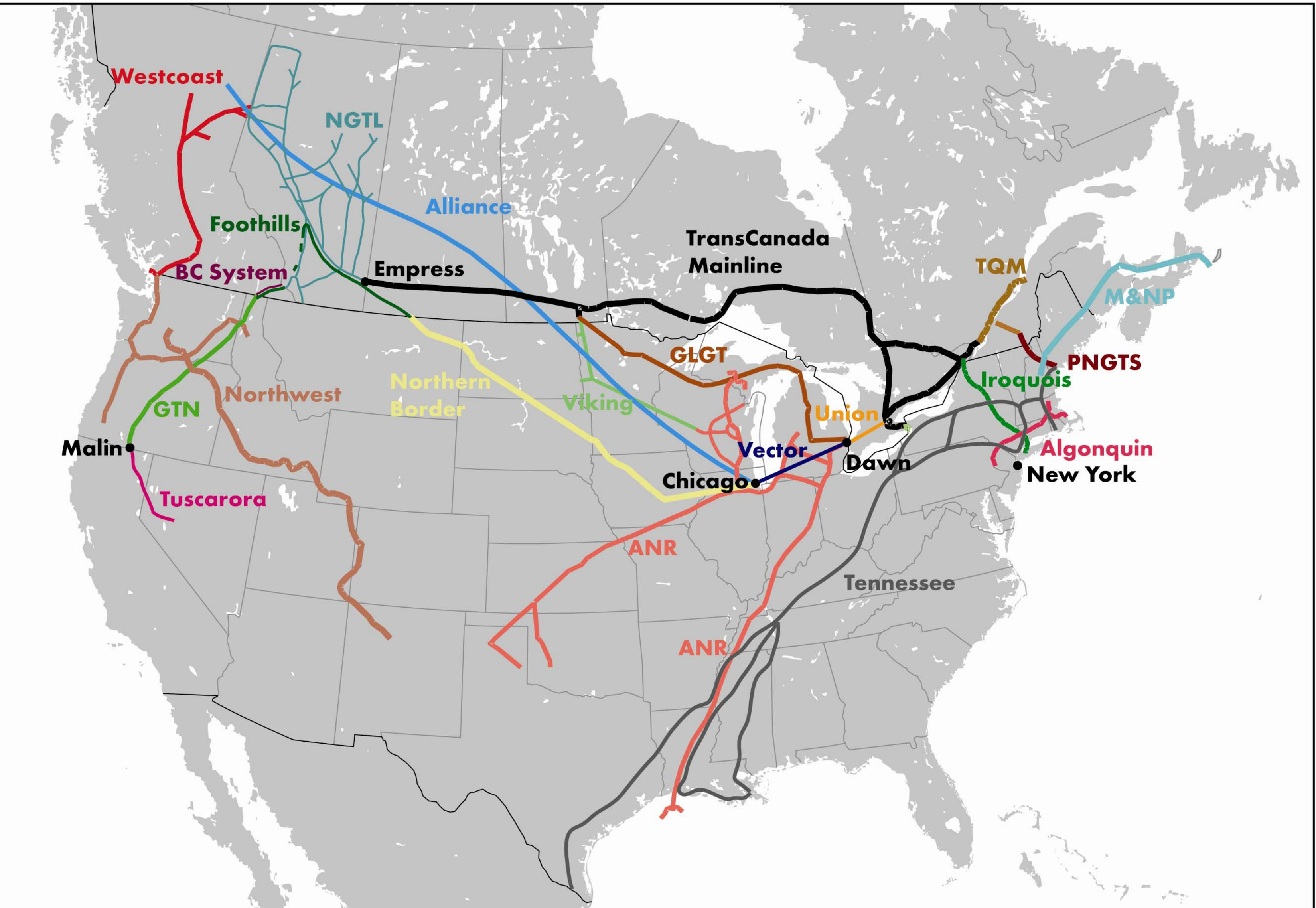
According to TransCanada, the entry of new pipelines has resulted in increased business risk for the Mainline and in the actual realization of that risk. Further, TransCanada submitted that the Mainline has been affected to a greater degree than other pipelines because it has a smaller proportion of long-term contracts and those contracts have shorter terms; it has been denied tools to compete, including pricing discretion, term differentiated rates and changes to contract renewal policies; and it has the poorest netbacks. As a consequence of these factors, the contractual underpinning of the pipeline, in particular billing determinants, has weakened, as shown in Table 4-3.

Table 4-3
Mainline Contract and Throughput Information
(As of September 2004)

	Contract		**Throughput**	
	Long-term Firm Daily Contract Quantities as of January (million GJ/d)	**Billing Determinants Firm Volume/Distance** (billion GJ-km)	**Firm & Non-Firm Volume/Distance** (billion TJ-km)	**Total Annual Average Daily Deliveries** (million GJ/d)
1998	7.9	17.1	6.2	7.6
1999	n.a.[1]	17.8	6.4	7.9
2000	7.8	17.7	6.1	7.8
2001	n.a.	14.7	5.5	7.1
2002	6.6	13.9	6.1	7.6
2003	n.a.	13.1	5.0	7.7
2004	7.1	12.0	5.0	7.8
2005	7.6	n.a.	n.a.	n.a.

1 Not available

Figure 4-3
Selected Canadian and US Pipelines



TransCanada claimed that the Mainline offers, and will continue to offer, a relatively less attractive netback compared with other ex-WCSB pipelines because of its greater distance to market. In support of this view, TransCanada provided an analysis which forecast netbacks over the period 2003 to 2025 for the six export routes that TransCanada viewed as the most relevant (see Table 4-4). Given its perception that the Mainline's netbacks are the lowest, TransCanada sees itself as the swing pipeline, attracting only the residual WCSB supply that does not flow elsewhere under contract or cannot move to markets offering better netbacks because of capacity constraints. TransCanada stated that parties would contract on the pipeline that has the lowest transportation cost. When asked about the relatively greater decontracting that occurred on other pipelines in the 2004/2005 contract year, TransCanada clarified that the swing pipeline hypothesis referred to flows on the system and not necessarily contracting.

Table 4-4
TransCanada's Netback Analysis
(Cdn$/GJ)

	2003		2004		2005	2004-2025
	Forecast	Actuals	Forecast	Actuals To July	Forecast	Average Forecast
Original six routes submitted by TransCanada:						
NGTL[1]/Mainline to Eastern Zone [2]	6.29	5.59	5.11	5.89	4.29	5.44
NGTL/Mainline/GLGT/TransCanada St. Clair to Dawn	6.44	5.74	5.27	6.13	4.45	5.59
Alliance to Chicago	6.65	5.86	5.45	6.14	4.55	5.54
NGTL/Foothills/Northern Border	6.68	5.88	5.49	6.22	4.60	5.58
NGTL/Mainline to Iroquois/Iroquois[3]	6.53	5.68	4.96	6.30	4.08	5.29
NGTL/BC System/GTN to Malin	6.40	5.46	5.46	5.67	4.62	5.76
Routes provided upon request:						
NGTL/Mainline to Dawn using Southwest Zone Toll	6.49	*5.78*[4]	5.31	*6.12*[4]	4.48	5.64
Alliance/Vector to Dawn	6.36	5.69	5.17	5.90	4.35	5.49
NGTL/Foothills/Northern Border/Vector	6.40	5.70	5.21	5.98	4.40	5.53
NGTL/Mainline to Niagara/Tennessee	6.93	6.09	5.37	6.68	4.49	5.71
Alliance/Vector/TransCanada Dawn to Niagara/Tennessee[5]	6.82	6.00	5.25	6.50	4.37	5.57
NGTL/Foothills/Northern Border/Vector/TransCanada Dawn to Niagara/Tennessee	6.86	6.01	5.29	6.58	4.42	5.61
Alliance/Vector/TransCanada Dawn to Iroquois/Iroquois	6.21	5.40	4.64	5.92	3.77	4.96
NGTL/Foothills/Northern Border/Vector/TransCanada Dawn to Iroquois/Iroquois	6.25	5.41	4.69	6.00	3.82	5.00
NGTL/Mainline/Viking[6]/ANR[7] to Chicago	6.43	5.64	5.25	5.98	4.37	5.34
NGTL/Mainline/GLGT/ANR to Chicago	6.42	5.62	5.23	5.94	4.34	5.29
Westcoast/Northwest Pipeline[8]/GTN to Malin	6.23	5.28	5.29	5.51	4.46	5.59

Bolding of routes indicates those using the Mainline
1 NOVA Gas Transmission Ltd.
2 Using Dawn Prices
3 Iroquois Gas Transmission System
4 Calculated using a $0.16/GJ differential between the Eastern Zone and the Southwest Zone Tolls and difference in fuel cost as provided by TransCanada
5 Tennessee Gas Pipeline Company
6 Viking Gas Transmission Company
7 ANR Pipeline Company
8 Northwest Pipeline Corporation

In response to information requests, TransCanada provided netbacks on additional routes beyond the original six, but submitted that some of these routes were not meaningful since they were little used. TransCanada also contended that the competitiveness of Alliance and Northern Border Pipeline Company (Northern Border) should be evaluated by comparing the netbacks from the primary destination on these pipelines, the Chicago, Illinois region, rather than the netbacks from gas flowing further downstream.

TransCanada contended that it was appropriate to use the Dawn, Ontario price with the Eastern Zone toll since the Dawn price is broadly indicative of prices further east. TransCanada stated that even though prices at the Niagara and Iroquois (Waddington, New York) export points are generally higher than at Dawn, the market at those points is not particularly liquid.

To address criticism of the netback study, in its reply evidence, TransCanada provided netbacks for the original six routes, using the April 2004 price forecasts of Energy and Environmental Analysis Inc. This analysis showed three Mainline netbacks as being lower than netbacks on Alliance or Northern Border from Chicago or netbacks on Gas Transmission Northwest Corporation (GTN) from Malin, California.

TransCanada did not regard a substantial portion of its market as being captive, given that deliveries are increasingly being sourced in the Chicago area and only flow on the Mainline for a short distance. Further, TransCanada submitted that Alliance and Vector Pipeline (U.S.) (Vector) can be easily and inexpensively expanded and toll increases due to non-renewals on the Mainline make potential alternatives increasingly attractive and feasible.

Other factors that TransCanada viewed as affecting its long-term competitive position include its outstanding deferred tax balance arising from using flow-through tax methodology, which TransCanada asserts puts it at a competitive disadvantage compared with its US competitors; absence of provision for terminal negative salvage in its depreciation rates; and uncertainty around the approved depreciation rate, which TransCanada characterized as variability risk. With respect to the depreciation rate, TransCanada submitted that because of increased pipe-on-pipe competition and the maturity of the WCSB, the probability of setting the depreciation rate incorrectly is now greater than in the past.

Specific factors which TransCanada cited as increasing competitive risk since RH-4-2001 include recent open seasons on Vector and Union; a reduction in contract terms; expansion by Vector in 2002; and the increasing prospects for LNG projects in the Mainline’s market areas. TransCanada submitted that LNG projects proposed for eastern Canada and the Northeast US are a new competitive threat to the Mainline, and as such, represent an increased business risk. TransCanada stated that, of the pipelines accessing the WCSB, only the Mainline faces competition from LNG directly in the markets it serves. At the same time, TransCanada expressed the view that LNG will be required to meet market demand and therefore it is advantageous for TransCanada to be involved in LNG development so it can influence where and how it enters its system. In the long term, TransCanada views it as beneficial for the Mainline to accept LNG into its system.

Position of Intervenors

CAPP submitted that the competitive issues TransCanada pointed to in this proceeding were the same as those raised in the RH-4-2001 Proceeding. These include: the swing pipeline concept and relative netbacks; alleged disadvantages related to long-term contracts on other pipelines; increasing use of short-haul transportation; potential expansion of competing pipelines; the risk that the Mainline will be unsuccessful in competing for supply; US pipelines' ability to discount; normalized versus flow-through tax treatment; and the risk that depreciation may not result in full cost recovery.

It was contended by CAPP that the Board took these factors, including the possibility of expansions of competing pipelines, into account in RH-4-2001 when it found that pipeline competition was the most significant change since RH-2-94. CAPP stated that issues associated with pipeline competition have not raised the Mainline's business risk since 2001. CAPP suggested that recent activities such as LNG and competition with Alliance and Vector are manifestations of the competitive dynamic that was already identified in RH-4-2001.

CAPP submitted that the swing pipeline argument is based on the attractiveness of the Mainline's netbacks compared with those of other pipelines, and argued that TransCanada's netback analysis is seriously flawed and unduly pessimistic. When netbacks from additional routes beyond the original six were analyzed, the Mainline's netbacks compared favourably with those of other pipelines and, for some destinations, the Mainline had the highest netbacks. For example, when the correct toll to Dawn was used, the Mainline was more competitive than routes using Alliance or Northern Border to that location.

CAPP noted that the netback study's conclusions are driven by assumptions regarding future market prices, which are inherently difficult to forecast. Different assumptions can lead to significantly different results. CAPP contended that the historical trends show the analysis to be unreliable, pointing to the difference between forecast and actual prices and the associated impact that differences in netbacks had in the rankings of the various routes, as shown in Table 4-4. For example, while TransCanada forecast that the route via the BC System and GTN to Malin would have the second highest netbacks in 2004, from January to July 2004, these netbacks were the second lowest. Further, CAPP pointed out that the differences between the netbacks from the various routes over the period to 2025 are not great. CAPP also suggested that the netback is not the only factor influencing the choice of market. In summary, CAPP submitted that the market or route that will occupy the swing position will change from time to time, as it has in the past.

It was pointed out by CAPP that the Mainline is not the only pipeline with an expiring long-term contract profile. Others include Northern Border, GTN and Northwest Pipeline.

CAPP contended that the Board has approved a number of changes since RH-4-2001, which reduce TransCanada's business risk. These include the increases in depreciation rates, the increase of the interruptible floor price to 110 percent of the firm toll, the approval of the Southwest Zone (all from RH-1-2002) and the approval of the North Bay Junction receipt and

delivery point (RH-3-2004).[45] As well, TransCanada's revenue protections mitigate the business risk faced by the pipeline, including pipe-on-pipe competition, a risk which CAPP suggests has not changed since 2001.

With respect to terminal negative salvage and tax balances resulting from the flow-through methodology, CAPP noted that these factors had been raised by TransCanada as risks in previous proceedings.

CAPP argued that since TransCanada assumed that the eastern end of its system is full due to growing markets, the principal issues around competition are how much supply is available at the western end of the system and what is the risk of additional capacity being built that would draw supply from the Mainline. CAPP argued that the risk of bypass at the western end of the Mainline is not any greater than it was in RH-4-2001, since new facilities must be approved by the Board and are still subject to the economic feasibility test, which requires a demonstration of overall supply and market.

Coral had a number of concerns regarding the accuracy of TransCanada's netback study. Routes that showed the Mainline as more attractive were omitted. TransCanada used the Dawn price and the Eastern Zone toll when the applicable toll to Dawn is the lower Southwest Zone toll. Coral observed that the real market prices in the Eastern Zone are the prices at places like Parkway, Ontario, and the Iroquois and Niagara export points. Coral contended that the fact that the netbacks from the model were considerably less than the fuel cost forecasts used did not demonstrate that the Mainline is intrinsically uneconomic, but more likely indicate a problem with the model. The market price projections extending to 2025 were based on human judgments. The projections for 2005 are not consistent with current circumstances, in which the Mainline appears to be more economic and attractive to shippers than other pipeline options, including Northern Border and Alliance.

Coral argued that the Mainline's business risk is reduced because it has captive customers with inelastic demands and alternatives that are very expensive in the long run.

Ontario argued that the competitive risk from pipe-on-pipe competition, and specifically from Vector and Alliance, were dealt with by the Board in RH-4-2001 and have not materially changed since then. Ontario argued that the issue of future tax liabilities and negative net salvage have been known for a long time and do not change the Mainline's long-term business risk. Further, TransCanada has identified only two natural gas pipeline companies that are currently collecting negative net salvage in their rates. Ontario also argued that LNG has potential benefits to the Mainline as an additional source of supply and support for continued development of gas markets. Ontario stated that there was no basis to conclude that the development of LNG materially increases the business risks of the Mainline.

Like CAPP, Ontario raised the issue of enhancements to the Mainline's business risk since RH-4-2001, adding the deferral account for Repair and Overhaul Expenditures approved in

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45 National Energy Board RH-3-2004 Reasons for Decision, TransCanada PipeLines Limited (North Bay Junction Application), December 2004

RH-1-2002 to the list of changes that CAPP had outlined. Ontario argued that TransCanada had failed to give appropriate weight to these enhancements in its 2004 Tolls Application.

Referring to the netback analysis, Ontario argued that having the highest costs does not necessarily mean that a pipeline has the worst netbacks, since market prices also determine netbacks. Ontario noted that the Mainline can be competitive at times.

4.6 Operating Risk

Operating risk is the risk to the income-earning capability that arises from technical and operational factors. TransCanada submitted that operating risks have not changed materially since RH-4-2001. CAPP agreed with TransCanada in that regard.

4.7 Views of the Board

As noted in Chapter 2, there was substantial discussion as to whether, in determining the appropriate capital structure for the Mainline, the Board should consider only changes in business risk since the last assessment or use a clean slate approach. As stated there, the Board is not limited to considering evidence pertaining to significant changes since RH-4-2001. In making its assessment of business risk, the Board has considered all of the evidence presented in this proceeding, including changes in risk since 2001 and an assessment of the appropriate weights assigned to each source of risk, given currently available information.

Supply Risk

The Board notes that there was general agreement among the parties that views on supply have changed since 2001. Further, there was general agreement that TransCanada's forecast of total conventional supply presented in its Base Case was reasonable and reflective of current knowledge. Overall, the Board is of the view that reasonable reliance can be placed on the range of conventional supply estimates presented during the hearing and that significant increases in WCSB conventional supply are unlikely. As a result, the Board finds that over the longer term, the Mainline will depend, in part, on the development of unconventional or northern supply, in order to maintain throughput. This dependence is greater today than was anticipated in 2001.

Unconventional supply, such as coalbed methane and tight gas, is more uncertain given its early stage of development. Although unconventional supply is expected to at least partially offset future declines in conventional production, the extent to which and when it will do so is uncertain.

Similarly, gas from both the Mackenzie Delta and Alaska may act to offset future declines in WCSB conventional production. However, as with

unconventional gas, there are uncertainties. Although TransCanada has included Mackenzie Delta gas in all of its throughput cases, it is not clear when, or if, this gas will flow, and if it does, whether it will flow on the Mainline. Therefore inclusion of Mackenzie Delta gas represents a possible downside risk for the Mainline if, in fact, these volumes do not materialize.

While the development of Alaskan supply appears more likely now than it did in 2001, commercial arrangements have not yet been negotiated. Further, if the facilities are constructed, the earliest flows would be several years away and it is not clear that these volumes would flow in whole or in part through the Mainline. In this regard, producers have sent clear signals that they want options for delivery of Alaskan gas, and utilization of the Mainline is only one of these options. The Board agrees with those parties who stated that Alaskan gas represents a possible upside for the Mainline, as shown in the Alaska-in Case, which was provided in response to an information request. Nonetheless, the Board accepts as reasonable the exclusion of Alaskan gas from the three original throughput cases.

The Board finds the ultimate potential estimates used by TransCanada in its Base, Low and High Cases, as well as its projections of WCSB production and western Canadian natural gas demand, to be reasonable. In estimating the supply available for export from western Canada to various pipelines, TransCanada made assumptions with respect to relative netback prices, pipeline utilization rates, capacity expansions and allocation methodologies. While the Board does not necessarily accept all of the assumptions used by TransCanada in this analysis, the Board finds the main three cases to be plausible. The Board also agrees with TransCanada that the Low Case is important in an assessment of business risk since it falls within the range of plausible scenarios. Further, the Board accepts that it is not solely a base case that reflects business risk and potential impact on the Mainline's earnings, but possible variations from it. In this respect, earnings are more likely to be affected in a scenario similar to the Low Case, than in more positive scenarios.

Taking into consideration changed perceptions with respect to supply since RH-4-2001 and the greater reliance on unconventional supply, the Board is of the view that there has been some increase in supply risk to which the Mainline is exposed.

Market Risk

With respect to the risk associated with the overall size of the natural gas market, the Board acknowledges that projections of natural gas demand growth in North America are lower now than at the time of the RH-4-2001 Proceeding. However, market growth is still expected to be sufficiently strong that it is not a constraint to the utilization of the Mainline.

Consequently, the Board does not consider that there has been any change associated with the Mainline's risk related to the overall size of the market. The risk associated with the market share that the Mainline is able to capture is discussed under Competitive Risk in this section.

Regulatory Risk

The regulatory context for the Mainline is evolving, but the Board finds no reason to conclude that the Mainline's regulatory risk has increased. The regulatory model continues to provide the Mainline with a reasonable opportunity to recover its prudently incurred costs. Indeed, the Board notes, as an example, that the direction from the Board in the RH-1-2002 Decision emphasizing "the importance of performing depreciation studies on a timely basis and of ensuring that depreciation rates reflect up-to-date information"[46] would indicate a directional decrease in regulatory risk. While the Board acknowledges that regulators may be unable to protect the Mainline if tolls become uncompetitive, this has always been true and does not constitute a change in regulatory risk.

The Board is of the view that the discussions between TransCanada and its stakeholders about a new business and regulatory model around the time of RH-4-2001 had not increased the regulatory risk of the Mainline, nor has the termination of those discussions reduced regulatory risk.

The Board does not accept that the Mainline's current level of regulatory risk is higher simply because, in the RH-1-2001 Decision, the Board stated that some sharing of risk between TransCanada and its shippers may be appropriate if considered on a prospective basis. The same Decision indicated that consideration of some sharing of risk between TransCanada and its shippers should take into account the appropriate balance between risk and reward and the tools required to manage such risk. The Board also notes that the statements made in the RH-1-2001 Decision were made before the commencement of the oral portion of the RH-4-2001 Proceeding.

On balance, the Board finds that there has been no measurable change in regulatory risk.

Competitive Risk

While it may have been possible in 2001 to foresee, at least in part, the manner in which competition to the Mainline would unfold, the Board is of the view that the implications of this competition are becoming clearer. Although throughput has not declined on a volume/distance basis to the same extent as billing determinants, the Board accepts that the contractual

46 RH-1-2002, *supra* note 42 at p. 43

underpinnings of the Mainline have weakened since 2001. There is also potential for LNG to capture markets in eastern Canada that were previously considered to be captive to the Mainline. As well, markets downstream of Dawn have the opportunity to acquire, and have expressed interest in acquiring, gas at Dawn. These factors could decrease reliance on the Mainline.

The Board does not find TransCanada's swing pipeline hypothesis compelling and finds the netback study to be flawed. TransCanada omitted routes that were significant in terms of volume, most notably the use of the Mainline to Niagara. This route has higher flows than the route to Iroquois, a route which was one of the six originally included by TransCanada. Of the routes provided, the use of the Mainline to Niagara offered the highest netbacks in recent history and is forecast to offer the second highest netbacks of all routes considered in TransCanada's netback study (see Table 4-4).

In response to TransCanada's assertion that the competitiveness of the Mainline relative to Alliance and Northern Border should be evaluated by comparing the netbacks from the primary destination of the pipelines, the Board notes TransCanada's contention that the Mainline competes with these pipelines in eastern Canada. Therefore, the Board is of the view that comparing these competing routes into Dawn is a relevant consideration. In this regard, the Board notes that the Mainline's netbacks from Dawn are competitive both in TransCanada's forecast and in recent history. When the Southwest Zone toll to Dawn is used, the Mainline offers better netbacks to Dawn than routes using Alliance or Northern Border. While the Board accepts that there is currently no pricing point located in the Eastern Zone that is sufficiently liquid to provide reliable pricing information, the Board notes that the use of the Dawn price combined with the Eastern Zone toll tends to underestimate the netbacks available for delivery to the Eastern Zone.

The Board is aware that forecasting market prices 20 years into the future is an inherently uncertain exercise. The Board notes that among TransCanada's original six routes, the variation between the highest and the lowest netback routes is relatively small, such that there is considerable margin for error in ranking various routes.

While it is true that the Mainline's markets are generally more distant from the WCSB than those of other ex-WCSB pipelines, netbacks are dependent upon both transportation costs and the prices obtainable in the specific markets. Therefore, the Mainline's distance to market does not necessarily mean that it will offer the lowest netbacks. Although the Mainline may at times offer the least attractive netbacks, this is not consistently the case, as shown by actual data for 2003 and for the first half of 2004. Further, the Board is of the view that the greater level of

recontracting that recently occurred on the Mainline than on some other ex-WCSB export pipelines is at odds with the swing pipeline hypothesis. Consequently, TransCanada's reliance on the swing pipeline hypothesis leads the Board to conclude that TransCanada has overestimated the competitive risk facing the Mainline.

The Board accepts that the issues of negative terminal salvage, and the Mainline's deferred tax balance under the flow-through tax methodology, have the potential to affect its competitive position. The Board is of the view that the importance of such factors increases in a more competitive environment. However, the Board notes that these are not new risks. Both have been known for a considerable length of time. Further, although not determinative, TransCanada's management has played a role in taking the Mainline to the position it is in today. The Board is of the view that negative terminal salvage is not a significant competitive factor given that it is an industry-wide issue with few pipelines currently collecting negative terminal salvage in their tolls. At this time, the Board is not persuaded that negative terminal salvage and deferred tax balances suggest an increase in the business risk of the Mainline.

In response to TransCanada's contention that the Mainline has been denied tools to compete, the Board notes that previous decisions are based on the specific circumstances pertaining to those proceedings. The Board also notes that most of the examples cited by TransCanada, such as term differentiated rates and changes to contract renewal policies, predate increased competition. An examination of Board Decisions since the level of competition has increased, in fact, shows that the Board has been responsive in making changes when circumstances warrant and in approving tools to compete. Examples of this include the increase in the Mainline's depreciation rate, the increase in the interruptible transportation floor price, the approval of the Southwest Zone, and the approval of the North Bay Junction receipt and delivery point.

Taking into consideration the further deterioration in the contractual underpinnings of the Mainline, the market interest in acquiring natural gas supply at Dawn and the prospects for LNG in the Mainline's market areas, the Board finds that, on balance, the Mainline's competitive risk has increased since RH-4-2001, although not to the extent suggested by TransCanada.

Operating Risk

The Board accepts the views of both TransCanada and CAPP that operating risks have not changed materially since RH-4-2001.

Depreciation and Business Risk

There was discussion during the hearing regarding the extent to which regularly adjusting depreciation rates to reflect current best estimates of economic life affects the risk faced by TransCanada.

The Board is of the view that there are two distinct aspects to risk as it relates to business risk and depreciation rates. The first is that the current best estimate of economic life, which is reflected in the depreciation rates, may ultimately prove to be wrong. Various business factors, including changes to supply or competitive forces, could alter the economic life of the Mainline. This possibility cannot be fully mitigated and therefore should be compensated through cost of capital.

The second aspect of depreciation-related risk is that the depreciation rates in use may not actually reflect the estimates of economic life that would be selected if assessed at that point in time. A company can mitigate the risk that the estimates in use are not current by bringing forward an application to reconsider its depreciation rates. The part of this risk that is mitigable should not be compensated through the cost of capital. Should it become apparent that depreciation rates do not adequately reflect current estimates of economic life, it is incumbent on the management of the company to seek to change depreciation rates, not to expect incremental compensation through the cost of capital.

Still related to the second aspect, there is a potential that a company's tolls may not incorporate sufficiently high depreciation rates because competitive factors would prevent such rates from being charged. This potential, if significant, is appropriately compensated through the cost of capital.

The assessment of cost of capital should assume that the depreciation rates reflect the best assessment of economic life of the pipeline. Consequently, resetting depreciation rates to reflect a new best estimate of economic life does not, by itself, reduce business risk from what it would be absent a change in the best estimate.

With respect to the argument that as rate base declines, business risk is reduced, the Board agrees that the total level of Mainline capital at risk decreases over time as the system is depreciated. The Board also accepts that there would be no capital recovery risk remaining should the system be fully depreciated. However, the Board is of the view that the business risk of the remaining assets does not decline simply because the rate base is becoming smaller.

In summary, in relation to the aspects of risk that cannot be mitigated, the Board does not consider that the changes in the Mainline's depreciation

rates that were approved in RH-1-2002, in and of themselves, reduced the Mainline's business risk; the changes merely re-based the Mainline's depreciation rates to reflect current knowledge concerning economic life. The Board is of the view that there has been no change to the risk that the current best estimate of the economic life may ultimately prove to be wrong.

Overall Business Risk

The Board finds that, overall, the business risk to which the Mainline is exposed has increased since RH-4-2001, as a result of increases in supply risk and competitive risk.

Chapter 5

Comparable Investments

5.1 After-Tax Weighted-Average Cost of Capital Evidence

A company's ATWACC is the after-tax weighted-average cost of each source of capital included in its capital structure. It is also referred to as the Weighted-Average Cost of Capital (WACC) and is regularly used in capital budgeting as a discount rate for net present value analysis and the hurdle rate for internal rate of return analysis. Throughout the hearing, TransCanada also referred to ATWACC as the overall cost of capital and overall return on capital.

Position of TransCanada

TransCanada sponsored the evidence of Drs. Kolbe and Vilbert who used an ATWACC-based approach to estimate the cost of capital and appropriate deemed equity ratio for the Mainline. This evidence relied on estimated ATWACCs for two sample groups of companies, considered to be of similar risk to the Mainline. The specific approach used by Drs. Kolbe and Vilbert (K&V ATWACC Methodology) is described below.

After considering the views of its experts, TransCanada chose to apply for a deemed equity ratio of 40 percent, which, when combined with the RH-2-94 Formula ROE of 9.56 percent and an after-tax market cost of debt of 4.14 percent, results in an ATWACC of 6.3 percent. TransCanada expressed the view that an ATWACC of 6.3 percent would improve the relative financial position of the Mainline but that it would fall short of meeting the fair return standard, adding that an ATWACC of 6.9 percent would be more representative of a fair return. Assuming an ROE of 9.56 percent, an ATWACC of 6.9 percent implies a common equity ratio of approximately 51 percent.

Description and Justification for the K&V ATWACC Methodology

The K&V ATWACC Methodology is based on the premise that a sample of companies with levels of risk similar to the subject company should have a comparable overall cost of capital. Under this methodology, an appropriate group of sample companies is established and their average market-value capital structures over a specific time period is estimated. Then, each of the sample companies' cost of equity (ROE) and after-tax market cost of debt is estimated. These cost estimates are then combined with each company's capital structure to determine its ATWACC and subsequently, the average ATWACC of the sample. Finally, the equity ratio that results from holding the sample's average ATWACC constant, but substituting the Mainline's ROE, is calculated. A comparison between the Mainline and the sample's average implied equity ratio is made. As set out in more detail below, this was undertaken for two sample groups.

Drs. Kolbe and Vilbert submitted that it is the overall cost of capital that should be used to determine a fair overall rate of return to meet the fair return standard. Dr. Kolbe emphasized that the cost of equity varies not just with business risk, but also with financial risk, which in turn

depends on the equity ratio. He acknowledged that the use of the K&V ATWACC Methodology as a regulatory approach is not under consideration in this application, as it was in RH-4-2001. However, Dr. Kolbe submitted that the Board cannot accurately interpret capital market risk-return evidence concerning the deemed equity ratio unless the interaction between the cost of equity and the capital structure is taken into account. In this context, Dr. Kolbe submitted that, if applied properly, the K&V ATWACC Methodology and the Board's traditional methodology of establishing an ROE and a deemed equity ratio should yield the same results.

It was suggested by Drs. Kolbe and Vilbert that there are multiple minimum-cost capital structures. They noted that interest expense from debt is tax deductible, but submitted that as a corporation takes on more debt, there are non-tax effects of debt that offset the tax benefits. These non-tax effects include a loss of management flexibility, the possibility of sending negative signals to investors, and costs and risks associated with financial distress. Dr. Kolbe expressed the view that both the research and empirical evidence indicate that there is no well-defined optimal capital structure within an industry and the range of capital structures over which the value of a firm in any industry is maximized is wide and should be treated as flat (that is, the ATWACC curve is flat over a broad middle range of capital structures).

Drs. Kolbe and Vilbert recommended that, in the future, the Board analyze the trade-off between capital structure and cost of equity explicitly and quantitatively rather than only subjectively and qualitatively.

Estimates of ATWACC and Implied Common Equity Ratios

As discussed above, the first step of Dr. Vilbert's analysis was to select two groups of sample companies and determine their average market-value capital structure. Since no companies involved exclusively in long-haul gas transmission exist in Canada or the US, Dr. Vilbert used a sample of Canadian Utilities and a sample of US gas local distribution companies (LDCs). Dr. Vilbert applied a series of screens intended to create samples whose primary business is as a regulated utility with business risk generally similar to the Mainline.

Then, for each sample, Canadian capital market data were used to estimate each of the sample companies' ROE and after-tax cost of debt. These cost estimates were then combined with each company's market-value capital structure to determine its ATWACC and the average ATWACC of the sample. Holding the sample ATWACC constant, Dr. Vilbert substituted the Mainline's ROE to calculate the implied equity ratio.

Drs. Kolbe and Vilbert submitted that the Canadian Utilities sample is an obvious benchmark group but noted that this group does not include many gas pipelines. Dr. Kolbe expressed the view that the general increase in competition for North American regulated industries and increased uncertainty due to the events of 11 September 2001 would tend to make current ATWACC estimates understate the true risk the sample companies face today. As well, he submitted that the Canadian gas LDCs, which are part of the Canadian Utilities sample, tend to be exposed to more short-term risk than the Mainline. However, he concluded that the overall Canadian Utilities sample is exposed to less long-term risk than the Mainline.

Dr. Kolbe submitted that the Mainline's overall cost of capital should be above that of the US gas LDCs sample. He contended that the Mainline has more long-term risk, although less short-term risk, than the US gas LDCs on average.

The estimated ATWACCs and implied common equity ratios at an ROE of 9.56 percent are summarized in Table 5-1. Dr. Vilbert estimated a deemed equity ratio range of 40 to 50 percent for his Canadian utilities sample (with a midpoint of 45 percent) and of 45 to 55 percent (with a midpoint of 50 percent) for his US gas LDCs sample. Dr. Kolbe submitted that TransCanada's requested deemed equity ratio of 40 percent was below what he would have recommended, which was in the range of 45 percent to 55 percent.

Dr. Vilbert presented a number of sensitivities in which he relaxed various assumptions, one at a time. These sensitivities included: using book-values weight; using a regression period ending October 2003; using different estimates of risk-free rates; using traditional single-factor beta regressions; removing the Merrill Lynch adjustment; using different estimates of Market Risk Premium (MRP); using a different cost of debt; and estimating the sample capital structure over the period ending May 2000. The outcomes of selected sensitivities are presented in Table 5-1. Dr. Vilbert contended that none of the sensitivities represent the best available estimate of the cost of capital for the Mainline.

Assumptions and Parameters

The following provides further details on the key assumptions and parameters employed by Drs. Kolbe and Vilbert in their estimation of each sample company's ATWACC.

Estimation of the Rate of Return on Equity

The estimated ROE of each sample company was an input in the estimation of its ATWACC. When estimating the market determined ROE for each of the sample companies, Dr. Vilbert used a risk positioning analysis, which is also known as Equity Risk Premium (ERP) analysis, and a Discounted Cash Flow (DCF) analysis. Dr. Vilbert expressed the view that, for both samples, the results of the DCF analysis are more variable and less reliable than those based upon the ERP analysis. He provided the results of the DCF analysis as a check on the results of the ERP analysis because it is a method that has been extensively used in the past. Dr. Vilbert also submitted that short-term risk-free rates have been driven below their historical averages. Therefore, Dr. Vilbert primarily relied on the results from the long-term ERP analysis in the determination of each of the sample companies' ROE.

Table 5-1
Estimated ATWACCs and Implied Equity Ratios

	ERP[1] Short-Term Rates				ERP Long-Term Rates			DCF[2]	
	CAPM[3]	ECAPM[4]			CAPM	ECAPM		Simple	Multi-Stage
		1%	2%	3%		1%	2%		
Dr. Vilbert's Original Estimates									
Canadian Utilities Sample									
ATWACC	5.6	5.8	6.0	6.2	6.4	6.6	6.8	7.2	6.6
Equity Ratio at 9.56% ROE	26.8	30.4	33.9	37.4	41.8	45.3	48.8	57.2	44.7
US Gas LDCs Sample									
ATWACC	5.5	5.8	6.1	6.4	6.6	6.9	7.2	7.8	7.8
Equity Ratio at 9.56% ROE	25.9	31.2	36.6	41.9	45.2	50.5	55.9	67.2	67.1
Dr. Vilbert's Sensitivity Analysis Estimates									
Canadian Utilities Sample									
Using Book-Value rather than Market-Value Weights									
ATWACC	5.2	5.3	5.5	5.6	5.8	5.9	6.1		
Equity Ratio at 9.56% ROE	19.6	22.2	24.7	27.3	30.5	33.0	35.6		
Using Short-term interest rate of 2.9% and long-term interest rate of 5.35% (rather than 3.3% and 5.6% respectively)									
ATWACC	5.4	5.6	5.8	6.0	6.3	6.5	6.7		
Equity Ratio at 9.56% ROE	23.3	26.9	30.4	33.9	39.6	43.1	46.6		
Using unadjusted betas									
ATWACC	5.0	5.3	5.5	5.8	5.9	6.2	6.5		
Equity Ratio at 9.56% ROE	15.4	20.7	26.0	31.2	32.1	37.4	42.7		
Using short-term MRP[5] of 6.0% and long-term MRP of 5.0% (rather than 6.5% and 5.5% respectively)									
ATWACC	5.5	5.6	5.8	6.0	6.3	6.5	6.6		
Equity Ratio at 9.56% ROE	24.2	27.7	31.3	34.8	39.2	42.7	46.2		
Using 6.2% cost of debt (rather than 6.37 %)									
ATWACC	5.5	5.7	5.9	6.1	6.4	6.6	6.7		
Equity Ratio at 9.56% ROE	27.5	30.9	34.4	37.8	42.1	45.6	49.0		
Using Market-value capital structures estimated over the 60-month period ending May 2000									
ATWACC	5.5	5.7	5.9	6.1	6.3	6.5	6.7		
Equity Ratio at 9.56% ROE	25.3	28.7	32.1	35.5	39.6	43.0	46.4		
US Gas LDCs Sample									
Using Book-Value rather than Market-Value Weights									
ATWACC	5.2	5.5	5.7	5.9	6.1	6.3	6.5		
Equity Ratio at 9.56% ROE	20.1	24.4	28.6	32.9	35.4	39.7	44.0		

1 Equity Risk Premium
2 Discounted Cash Flow
3 Capital Asset Pricing Model
4 Empirical Capital Asset Pricing Model
5 Market Risk Premium

Equity Risk Premium Analysis

Under the ERP analysis, the cost of equity is estimated as the sum of a current risk-free interest rate (risk-free rate) and a risk premium. The risk premium is the amount of compensation that an investor requires over the risk-free rate in order to be compensated for the additional levels of risk associated with a specific security. The most common ERP model is the Capital Asset Pricing Model (CAPM), under which a security's risk premium is the product of an MRP and the security's beta. In the CAPM model, the risk-free rate and MRP are common to all securities and the variation in the ROEs of various securities is solely dependent on each security's beta. Beta is a measure of the systematic risk of a security. It measures the extent to which a stock price fluctuates relative to fluctuations in the market benchmark.

Dr. Vilbert also relied on a second ERP-based model, which is the Empirical Capital Asset Pricing Model (ECAPM). Dr. Vilbert submitted that empirical research has demonstrated that the CAPM tends to overstate the actual sensitivity of the cost of capital to beta and that the use of an ECAPM approach can reduce this overstatement. For the short-term benchmark version of his ECAPM ERP analysis, Dr. Vilbert used adjustment coefficients of 1, 2, and 3 percent. For the long-term benchmark version of his ECAPM ERP analysis, Dr. Vilbert used adjustment coefficients of 1 and 2 percent.

Dr. Vilbert estimated two versions of the ERP analysis based on a benchmark short-term risk-free rate and a benchmark long-term risk-free rate. His short-term benchmark version used a short-term risk-free rate of 3.30 percent and a short-term MRP of 6.5 percent. His long-term benchmark version used a long-term risk-free rate of 5.60 percent and a long-term MRP of 5.5 percent.

For the Canadian Utilities sample, Dr. Vilbert calculated betas using a two-factor model, in which betas are calculated from a regression that includes both the excess returns on the S&P/TSX Index (S&P/TSX) and the excess returns on a pure Government bond factor. Dr. Vilbert stated that the two-factor model adjusts, in part, for the extra sensitivity to interest rate changes of the returns of companies regulated on the basis of original cost rate base. He then adjusted the estimated betas according to the Merrill Lynch adjustment procedure to compensate partially for sensitivity to interest rate changes of companies regulated on the basis of original cost rate base.

Dr. Vilbert estimated the betas of the firms in the Canadian Utilities sample over a five-year period ending May 2000. Dr. Vilbert chose this time period due to the significant decline in the statistical relationship between the market return as measured by S&P/TSX and the companies' returns during the most recent five years. Drs. Kolbe and Vilbert acknowledged that there is not a match between the time period over which their capital structure and beta calculations were made, but submitted that this explicit violation would underestimate to a lesser extent the ATWACC of the Canadian Utilities sample than the use of more recent betas. They noted that very low or even negative betas would result if the most recent five years had been used.

For the US gas LDCs sample, Dr. Vilbert used betas estimated by *Value Line* for the most recent five-year period. Since the betas reported by *Value Line* are adjusted, he reversed the adjustment

process to obtain unadjusted values. This was done because the US LDCs did not exhibit the statistically significant degree of interest rate sensitivity that the Canadian utilities did.

Discounted Cash Flow Analysis

Dr. Vilbert provided estimates of the cost of equity for each of the sample companies based on the DCF analysis. He expressed the view that DCF analysis is conceptually sound if its assumptions are met but can run into difficulty in practice because those assumptions are so strong and hence, so unlikely to correspond to reality. Dr. Vilbert expressed the view that the DCF model's strong assumptions make the DCF analysis inherently less reliable than the ERP analysis.

Estimation of the After-Tax Cost of Debt and Cost of Preferred Equity

Dr. Vilbert estimated the October 2003 yield on 'A' rated utility bonds to be 6.37 percent. Combined with the Mainline's estimated marginal income tax rate for 2004 of 34.99 percent, he arrived at a 4.14 percent after-tax market cost of debt for 'A' rated utilities. Dr. Vilbert set the cost of preferred equity equal to the after-tax market cost of debt. The same cost of debt and preferred equity was used for 'A' rated utilities for both samples.

Estimation of the Capital Structure

The capital structure for each sample company in the ERP analysis was estimated by using the market value of common equity, preferred equity and debt from the most recent five years of publicly available data. For the DCF analysis, the most recently reported market-value capital structures were used. Dr. Kolbe expressed the view that it would contradict economic theory to use book-value weights for the companies' capital structures. He submitted that the true beta depends on the market value of the firm's capital structure for both regulated firms and for unregulated firms. Thus, the measured beta of a regulated company sample will be lower when its market-to-book ratio is above one than when its market-to-book ratio equals one. Dr. Kolbe contended that with a market-to-book ratio over one, use of book-value weights can lead to a serious understatement of the company's true required ROE.

TransCanada's Response to CAPP's Evidence

In response to Dr. Booth's assertion (see Position of Intervenors below) that regulators fail when a regulated company does not display a particular market-to-book ratio, Dr. Kolbe submitted that regulators have no control over market values. Dr. Kolbe submitted that underlying Dr. Booth's evidence on the meaning of the market-to-book ratio is a simple model of stock price formation. He contended that if that model were valid, the implied true ROE of rate-regulated investments would be far too low, and in most cases lower than the benchmark 30-year Government bond interest rate used in the Board's RH-2-94 Formula. Dr. Kolbe submitted that the market-to-book ratio is not a reliable test of whether the returns on rate-regulated investments are reasonable. TransCanada's evidence showed that its market-to-book ratio was 1.98 as at the second quarter of 2003.

Position of Intervenors

CAPP expressed the view that an ATWACC-based methodology relies on an inextricable link between the ROE and capital structure. CAPP submitted that it is not possible for the Board to consider an ATWACC-based methodology because it would require consideration of the cost of equity, which is not an issue in this proceeding. For the same reason, CAPP did not present evidence concerning estimation of the cost of equity capital. CAPP argued that the ATWACC evidence presented in this hearing has the same problems that the Board discussed in the RH-4-2001 Decision.

CAPP sponsored the evidence of Dr. Booth, who indicated that it is a fundamental contradiction to use an ATWACC-based methodology in regulatory filings as it is a mirror image of shareholder value maximization. Dr. Booth recommended that the Board ignore this indirect approach and continue with the traditional methodology. Dr. Booth contended that book values rather than market values should be utilized in the determination of the Mainline's ROE. He stated that the market, not the Board, determines market values. From Dr. Booth's perspective, fair and reasonable rates imply that the regulated firm's market-to-book ratio should be around one. He expressed the view that accepting market-value weights significantly different from book-value weights would imply that regulation has failed.

IGUA submitted that the equity component of ATWACC is no more reliable as a regulatory tool, than ATWACC itself; that it was subject to all the flaws of ATWACC and should be rejected.

Coral expressed the view that the ATWACC analysis is fundamentally flawed by its reliance on market-value capital structures and that the comparative return analysis is meaningless as an indicator of the cost of capital. Coral submitted that for a regulated utility, whose earnings are a direct function of the book value of its assets, the market-to-book ratio is valuable in determining whether the utility is earning its cost of capital.

Ontario expressed the view that the ATWACC analysis is flawed and unreliable. Ontario submitted that the Board should give no weight to the deemed equity range expressed by Drs. Kolbe and Vilbert for the Mainline. Ontario highlighted several statements in Dr. Kolbe's written evidence in support of the view that financial theory on minimum-cost capital structure has deficiencies and shortcomings. Ontario also submitted that the analysis of Drs. Kolbe and Vilbert had insufficient data from companies exclusively involved in natural gas transmission.

Views of the Board

The Board accepts that ATWACC-based methodologies have theoretical merit, but is of the view that a number of empirical concerns limit their usefulness as a tool to assess cost of capital or the Mainline's appropriate deemed equity ratio.

The Board is cognizant of the fact that there are no companies involved exclusively in long-distance natural gas transmission, and the approach must therefore rely on sample companies that are not directly comparable. While the sample of Canadian Utilities is an obvious benchmark, the

Board notes that all firms in Dr. Vilbert's Canadian Utilities sample derive a portion of their revenues from unregulated activities. Since these activities are typically riskier than gas pipeline operations, the estimated cost of capital for these firms tends to overstate the cost of capital of their regulated operations, and indirectly that of the Mainline. In the Board's view, the evidence of Drs. Kolbe and Vilbert did not adequately address this concern.

The Board notes that the K&V ATWACC Methodology assumes a specific relationship between a company's ROE and capital structure through the reliance on the assumption that there is a broad range over which the ATWACC curve is flat. The Board has acknowledged in previous decisions that there is a relationship between ROE and capital structure, but has traditionally addressed this relationship qualitatively, rather than quantitatively.

The Board accepts that, over a certain range, the ATWACC curve may be flat or virtually flat. However, in the Board's view, the evidence does not persuasively demonstrate the breadth of this range. Therefore, the Board is of the view that caution should be applied in relying on ATWACC-based evidence from companies with capital structures significantly different from that which is deemed for the Mainline. In this regard, the Board notes that the average estimated level of common equity for the companies in the US gas LDCs sample differs significantly from the currently deemed ratio for the Mainline. Further, it also exceeds that estimated for most companies in the Canadian Utilities sample. In the Board's view, these differences in capitalization are likely reflective of material differences in business risk. Consequently, the Board places little reliance on the US gas LDCs sample, or on firms in the Canadian Utilities sample that exhibit significantly different equity ratios.

In addition, the Board notes that during the ATWACC estimation process, numerous adjustments were made, all of which result in an increase to the estimated ATWACC. As can be observed in Table 5-1, the impact of relaxing even a single assumption can be significant.

The Board has particular concerns with the inconsistent time periods over which the Canadian Utilities sample's betas were derived (five-year period ending May 2000) and the corresponding market-value capital structures were estimated (five-year period ending October 2003). The Board notes that Drs. Kolbe and Vilbert emphasized the importance of the fundamental relationship between a firm's true beta and market value capital structure. The Board is of the view that this empirical inconsistency weakens the application of the K&V ATWACC Methodology.

In the context of this application and evidence, the Board is of the view that due to the numerous adjustments and time period inconsistency of the

estimation process, the K&V ATWACC Methodology does not yield cost of capital estimates that are determinative of an appropriate deemed equity ratio for the Mainline. While the Board accepts that the ATWACC-based evidence of Drs. Kolbe and Vilbert directionally supports an increase to the Mainline's common equity ratio, the evidence provides little insight on the appropriate magnitude of such an increase.

With respect to concerns expressed over market-to-book ratios, the Board does not expect regulated utilities to display a particular market-to-book ratio and recognizes that many different market forces can influence a company's market-to-book ratio. At the same time, the Board is of the view that market-to-book ratios are an indication of a company's financial health. The Board recognizes that TransCanada's market-to-book ratio reflects that of the consolidated entity, not that of the Mainline or of TransCanada's Canadian pipeline operations. Nonetheless, given that the majority of TransCanada's income comes from its Canadian regulated operations, while not determinative, the Board is of the view that TransCanada's market-to-book ratio of approximately two provides some indication that the current deemed equity ratio of the Mainline cannot be considerably below the appropriate level.

5.2 Other Comparable Investments

5.2.1 Comparisons to Alliance, M&NP, Enbridge and Westcoast

Position of TransCanada

TransCanada expressed the view that it should earn returns at least comparable to Alliance, Maritimes & Northeast Pipeline (M&NP) and Enbridge Pipelines Inc. (Enbridge) since it viewed all of these pipelines as being of lower risk than, although of comparable risk to, the Mainline. According to TransCanada, the returns of Alliance and M&NP provide real-world data demonstrating the level of return necessary to promote investment in pipeline infrastructure and are the best examples of investments of comparable risk to the Mainline. These pipelines also provide evidence of the returns necessary to meet the capital attraction standard. TransCanada submitted that the most meaningful comparators of alternative investments are the other pipelines that are regulated by the Board.

TransCanada noted that the Board said in its RH-4-2001 Decision that:

> The Board does not consider the evidence pertaining to comparisons of the Mainline with Alliance, M&NP and Enbridge to be particularly meaningful in establishing a fair return for the Mainline. The Board notes that TransCanada's evidence on relative business risk only considered certain factors and ignored several others. More importantly, the returns achieved by these pipelines reflect a different risk-reward environment and different circumstances. A more meaningful comparison would require a thorough assessment of the relative business risks of each pipeline as well as an

estimation of what each pipeline's cost of capital might be absent differences in circumstances.[47]

TransCanada submitted that it tried to address the Board's concerns discussed in the RH-4-2001 Decision and attempted to provide a more thorough assessment of the relative business risks of these pipelines and the Mainline based on publicly available data.

As noted in Chapter 2, TransCanada discussed three methodologies for comparing the total return of pipelines: ATWACC, total equity return and return on rate base, which is based on an after-tax ROE, and before-tax embedded cost of debt. The third methodology was only used to compare TransCanada's overall return on rate base of approximately 9.0 percent with 33 percent equity, or 9.1 percent with 40 percent equity, with the awards of the US Federal Energy Regulatory Commission (FERC), which have averaged 10.0 percent to 10.5 percent since 2002, when calculated on the same basis.

Table 5-2 compares the ATWACC for Enbridge, M&NP, Alliance and Westcoast Energy Inc., carrying on business as Duke Energy Gas Transmission Canada (Westcoast), based on data provided by TransCanada.

Table 5-2
Cost of Capital Information

	Equity Ratio (percent)	**Approved ROE** (percent)	**ATWACC[1]** (percent)
Mainline (at 40% equity)	40	9.56	6.3
Mainline (at 33% equity)	33	9.56	5.9
Enbridge[2]	45	13.0	8.1
M&NP	25	13.0	6.4
Alliance	30	11.3	6.3
Westcoast	31	9.56	5.8

1 The after-tax market cost of debt used by TransCanada to calculate the ATWACC was 4.14 percent for an 'A' rated utility.
2 As estimated by TransCanada.

The following discussion of comparisons to Alliance, M&NP, Enbridge and Westcoast also pertains to the Relative Business Risk of Pipelines analysis presented in Section 5.2.2 and the Comparative Investment analysis presented in Section 5.2.3 and will not be repeated in those sections.

Alliance

TransCanada stated that all aspects of the business risk of Alliance are similar to or lower than those of the Mainline, primarily because Alliance was supported by 15-year transportation

47 RH-4-2001, *supra* note 4 at p. 35

contracts at the time the pipeline commenced operation. Further, TransCanada submitted that Alliance's five-year renewal provisions, with accelerated depreciation in the last five years of the contracts if they are not renewed, serve to lower Alliance's business risk. As a result of having longer contract terms, TransCanada contended that Alliance has less exposure to competitive, market, regulatory and supply risks. TransCanada claimed that Alliance's supply and market risks are also reduced relative to the Mainline because Alliance offers higher netbacks than the Mainline.

TransCanada suggested that Alliance benefits from a higher overall depreciation rate and therefore a shorter depreciation period. TransCanada acknowledged that Alliance faces shipper default risk but viewed it as insignificant given the apparent creditworthiness of its firm shippers and its ability to require financial assurances from its shippers.

With respect to Alliance's construction cost risk, TransCanada argued that this was a mitigable risk and therefore should not receive compensation in the return. Further, those risks were borne and realized in the past. Since present return is not to compensate a utility for risks borne and realized already, TransCanada argued that the construction cost risk is irrelevant. It also noted that Alliance's lower return applied to actual capital costs so that Alliance's total return in dollars increased as a result of the construction cost overruns.

M&NP

TransCanada viewed the overall business risk of M&NP as lower than the Mainline, primarily due to its long-term contracts. It noted that when M&NP was approved, it was viewed as having the same business risk as other Group 1 pipelines, but that was prior to the approval of Alliance and Vector. TransCanada suggested that the supply risk which M&NP bears due to accessing a new supply basin is fully mitigated by the existence of 20-year backstop agreements with Mobil Canada Products Ltd. and Mobil Properties Ltd. so that M&NP has less supply risk than the Mainline.

According to TransCanada, M&NP's regulatory risk is less than the Mainline's because there is less risk of competing pipelines and because its return was set for a five-year period and was subsequently extended for two years. TransCanada submitted that M&NP's higher market risk is offset by the existence of long-term contracts. TransCanada further noted that depreciation rates are higher than for the Mainline.

Enbridge

While the Enbridge mainline operates with month-to-month nominations, TransCanada submitted that the impact of revenue variations is mitigated in the short term by the Transportation Revenue Variance provisions in the settlements Enbridge negotiated with its shippers between 1995 and 2004. TransCanada claimed that Enbridge's Transportation Revenue Variance offers greater revenue assurance than its own deferral accounts due to its automatic nature.

TransCanada noted that Enbridge's supply risk is reduced by the expectation of growing oil production but increased by exposure to the various environmental, economic, consultative and jurisdictional risks that impact new and expanded oil sands projects. It added that Enbridge also

faces increasing pipe-on-pipe competition from Trans Mountain Pipe Line Company Ltd. and Express Pipeline Ltd.

Westcoast

TransCanada initially excluded Westcoast from its analysis of comparable investments and its comparative risk analysis but provided information in response to information requests. TransCanada expressed the view that the inclusion of Westcoast in this analysis would be circular since Westcoast's ROE is derived using the RH-2-94 Formula. TransCanada's position was that the inclusion of Westcoast, or any other company on the RH-2-94 Formula, would only lead to the conclusion that pipelines using similar methodologies tend to have similar returns. TransCanada also indicated that Westcoast was not a relevant comparator because its return was too low.

TransCanada contended that, although Westcoast agreed to the RH-2-94 Formula ROE on an equity thickness of 31 percent in its negotiated settlement for 2004 and 2005, it was because Westcoast's return was part of an overall settlement reflecting the best interests of the corporation, rather than being reflective of a fair return.

Position of Intervenors

CAPP

CAPP submitted that TransCanada's comparisons to Alliance, M&NP and Enbridge are inappropriate and should be given little weight. CAPP submitted that the comparisons to M&NP and Alliance primarily support a request for an increase in ROE, not equity thickness.

It was noted by CAPP that Alliance took risks that the Mainline does not face, including: incurring some capacity risk through a marketing affiliate; credit risk when shippers default, which has happened; interest rate risk with the return on equity locked in for 15 years; risk associated with locking in the depreciation rate for the long term; and construction risk, which was realized and reduced Alliance's ROE from 12 percent to 11.25 percent. While Alliance's lower return resulting from construction cost overruns was applied to the resulting larger rate base, the Mainline has had many cost overruns with no rate of return impairment.

Further, CAPP pointed out that Alliance's return on equity of 12 percent (before being reduced because of cost overruns under the construction risk incentive) was negotiated in 1996 when the return on equity resulting from the RH-2-94 Formula was 11.25 percent. It was filed with the Board when the RH-2-94 Formula ROE was 10.67 percent. CAPP noted that Alliance, at 30 percent, has a lower equity ratio than the Mainline.

CAPP submitted that at the time the capital structure was established, there were differences associated with M&NP that justified the higher return, including the requirement to access supply from a few fields with untested reserves. CAPP also pointed out that M&NP has 25 percent equity in its capital structure.

It was observed by CAPP that since 1995, Enbridge's return has been negotiated as part of an incentive agreement and the returns on equity cannot be looked at outside this context. Further,

Enbridge's higher equity ratio reflects common carriage of an oil pipeline and related characteristics such as tolls designed on the basis of forecasts without deferral accounts.

CAPP viewed the Mainline as being of lower or similar risk to Westcoast and submitted that Westcoast's 31 percent common equity ratio was a valid benchmark.

Coral

Coral argued that both Alliance and M&NP fixed their allowed returns for an extended period at a level that reflected long-term bond yields at the time. Their return on equity included compensation for assuming the risk of locking in the rate. Since then, these pipelines have benefited because interest rates have dropped significantly. Consequently, the return on equity for these two pipelines is not comparable to the Mainline.

From Coral's perspective, in order to make them comparable, one should remove the premium for fixing the return on equity for the term of the agreement and adjust for changes in interest rates since that time. Coral described Alliance's ROE of 12 percent as 75 basis points above the RH-2-94 Formula return on equity at the time is was negotiated and 133 basis points above the RH-2-94 Formula ROE at the time the application was filed with the Board. Coral submitted that in the case of M&NP, evidence was filed, and accepted by the Board, which indicated that the ROE included a 75 to 100 basis points premium for locking in return on equity for five years.

When asked by Coral to adjust for a locking-in premium and changes in interest rates, TransCanada calculated the ATWACCs of Alliance and M&NP as 5.9 percent, the same as the Mainline at a 33 percent equity thickness. Coral further noted that, at the time Alliance set its ROE, it was only 75 basis points above the RH-2-94 Formula ROE, rather than the 133 basis points used in the above calculations. Using a 75 basis points differential would result in an adjusted ATWACC below 5.9 percent.

With respect to TransCanada's assertion that M&NP's regulatory risks are less than the Mainline's because the return on equity was set for five years and subsequently extended, Coral argued that Group 1 pipelines regulated by the Board do not have materially different regulatory risks simply because they are able to successfully negotiate rate of return with their shippers.

Coral noted that the Board last addressed Enbridge's equity component in RH-2-94. Since then Enbridge has been successful in negotiating settlements with its shippers. Coral submitted that Enbridge's success with its shippers does not reveal anything about the Mainline's cost of capital.

Ontario

Ontario argued that the Mainline and Westcoast have similar overall business risk, including access to WCSB supply, competition from new pipeline takeaway capacity, excess pipeline capacity and an increase in the number of shippers holding short-term contracts. In addition, Westcoast faces similar issues with respect to competition with US pipelines and concerns of the credit rating agencies. Ontario contended that since there is no material difference in business risk between Westcoast and the Mainline, both rely on the RH-2-94 Formula and Westcoast has

settled on a deemed equity level of 31 percent for 2004 and 2005, there is no reasonable basis for increasing the Mainline's deemed equity thickness above 33 percent.

Ontario argued that TransCanada's lower risk ranking for Enbridge was without merit given the nature of the risks that this pipeline faces.

5.2.2 Relative Business Risk Analysis

Position of TransCanada

The Mainline was compared with a selected group of nine pipelines: three Canadian pipelines that are not subject to the RH-2-94 Formula (Alliance, M&NP and Enbridge); five pipelines in which TransCanada has an ownership interest (Northern Border, GLGT, GTN, Iroquois and Portland Natural Gas Transmission System (PNGTS)); and Vector.

To prepare the analysis, TransCanada rated each pipeline in five major risk categories, three short-term and two long-term, based upon its assessment of publicly available information. The weights applied to each category are shown in Table 5-3.

TransCanada defined short-term risk as one that affects variability of earnings year over year. For pipelines operating under a fixed forward test year methodology, the short term was defined as one year, whereas for pipelines operating under multi-year settlements, the short term was equivalent to the term of the settlement, regardless of its length. Everything beyond these periods was considered to be long term in this analysis. TransCanada stated that in the short term, the fundamental risk is that the achieved return will fall short of the expected return, but in the long term, the fundamental risk is that the utility will become uneconomic, resulting in a loss of all or part of the capital that has been invested. TransCanada also referred to the potential for the premature truncation of capital recovery as truncation risk. TransCanada assigned 75 percent weighting to the long-term risks and 25 percent weighting to what it considered to be the less significant short-term risks.

For each category of risk and for each pipeline, TransCanada assigned a risk ranking between zero and four and then calculated a total risk ranking for the pipeline given the weights selected. The resulting Business Risk Index for each pipeline was compared graphically and in tabular form with approved returns on capital (ATWACC). The tabular comparison is set out in Table 5-3. TransCanada argued that it is not appropriate to compare pipelines based on equity thickness alone since many pipelines have risk reflected in their return on equity rather than entirely in equity thickness. One component of TransCanada's ranking of long-term revenue and cost risk was its assessment of relative netbacks and its view of the Mainline as the swing pipeline (see Section 4.5, Competitive Risk).

TransCanada concluded from this analysis that there is a positive correlation between business risk and returns but that the Mainline has the highest business risk ranking and the lowest approved return on capital of the pipelines selected. Even if long-term risk was weighted at 50 percent, TransCanada contended that the analysis would still support a 40 percent equity thickness for the Mainline. A 25 percent long-term weighting would still show the Mainline's return as low relative to Alliance and M&NP.

Table 5-3
TransCanada's Comparison of Business Risk Index to the Approved Return on Capital

	Short-term Risks				Long-term Risks		Business Risk Index	ATWACC
	Revenue	Cost	Operating	Regulatory	Revenue and Cost	Operating		
Weights	15%	5%	5%	0%	70%	5%	100%	(%)
Mainline (40%)	0	1	0	1	4	1	**2.90**	**6.3**
Mainline (33% in 2003)	0	1	0	1	4	1	**2.90**	**6.0**
GLGT	3	4	1	1	3	1	**2.85**	**8.2**
Vector	3	2	1	1	3	1	**2.75**	**7.1**
PNGTS	1	4	1	1	3	1	**2.55**	**7.5**
Westcoast	1	2	1	1	3	1	**2.45**	**5.8**
Enbridge	0	3	0	1	3	1	**2.30**	**8.1**
Northern Border	2	4	1	1	2	1	**2.00**	**6.9**
GTN	2	3	1	1	2	1	**1.95**	**7.0**
Iroquois	1	4	1	1	2	1	**1.85**	**7.0**
M&NP	0	2	0	1	2	1	**1.55**	**6.4**
Alliance	0	0	0	1	1	1	**0.75**	**6.3**

TransCanada recognized the subjectivity of the analysis but submitted that it provides a transparent framework upon which to assess the relative risk factors. TransCanada also asserted that its analysis was more transparent and credible than CAPP's business risk analysis. TransCanada viewed CAPP's analysis as superficial and submitted that it suffered from the same criticisms that had been levelled by CAPP at TransCanada's analysis.

Addressing CAPP's criticism that TransCanada minimized the impact of differences between Canadian and US regulation and also minimized the failure of US pipelines to recover their allowed returns, TransCanada argued that US pipelines have more short-term earnings volatility, which is compensated through higher expected and achieved returns, but that there is no meaningful difference in long-term regulatory policy, which allows US pipelines a fair opportunity to recover their investment. TransCanada also submitted that actual returns provide some indication of exposure to short-term risk but no insight into how a pipeline is being compensated for its long-term risk. Further, in support of its use of allowed returns in this analysis, TransCanada contended that allowed returns are readily available, comparable and free of financial anomalies that cause variations in actual returns.

In response to intervenors' contention that the risk ranking of Vector in TransCanada's business risk analysis should not have been lower than that of the Mainline given Vector's exposure to capacity risk, negotiated rates and other risks, TransCanada stated that risks associated with Vector, as well as the factors that mitigate these risks, were taken into account. TransCanada suggested that the risk associated with the Mainline's low netbacks out of the WCSB outweighed Vector's long-term risks.

With respect to criticism of the authorized ROE that TransCanada used for Vector and PNGTS, TransCanada submitted that the correct after-tax ROE for PNGTS was actually slightly higher than the number TransCanada used. For Vector, TransCanada acknowledged that it used an ROE from an earlier period since it did not have the most recent number.

Position of Intervenors

CAPP

CAPP submitted that TransCanada's analysis is seriously flawed, largely subjective, and presents an inaccurate picture of relative risks. CAPP found the arbitrary distinction between short-term and long-term risk that TransCanada drew to be essentially meaningless and fundamentally a false dichotomy. CAPP submitted that risk realization over the long-term is nothing more than a yearly comparison of actual returns to allowed returns. CAPP contended that the weighting of risk should be greatest for the short-to-medium term rather than the long-term, since the present value of risk events that occur several years into the future is much less than the value of risk events occurring in the immediate future. Further, this effect, CAPP contended, is compounded by depreciation allowances that leave even smaller amounts at risk in future years.

CAPP suggested that TransCanada overstated its own risks and understated those of other pipelines. This, it suggested, is most obvious in the comparison with Vector, which TransCanada assessed as being less risky than the Mainline even though Vector has recourse rates designed to the pipeline's capacity, although it is not fully contracted; has negotiated rates below its maximum rates; offers discounts for 30 percent of its capacity; has a marketing affiliate that assumes the risks of some of the capacity; has deferred recovery of depreciation far into the future; and has had very low returns historically (ROE of 3.7 percent in 2002 and 3.5 percent in 2003). CAPP stated that other pipelines assess their own risk as higher than that portrayed by TransCanada. These pipelines include PNGTS, Iroquois and the US affiliate of M&NP, which shares some of the same risks with M&NP in Canada. Northern Border was also assigned a much lower rating of long-term revenue and cost risk by TransCanada than the Mainline even though it too has an expiring contract portfolio and draws from the WCSB. CAPP questioned the fact that TransCanada sees diversity of supply as a factor reducing risk for pipelines like Iroquois and Northern Border but not for the Mainline.

It was noted by CAPP that 70 percent of the weighting falls on a single factor, the long-term revenue and cost risk category, for which TransCanada assigned itself, and no other pipeline, the highest rating of four. In all other categories TransCanada viewed the Mainline as having little or no risk. CAPP stated that this long-term revenue and cost risk category dominates the final index rankings. If the ratings were reversed so that short-term revenue and cost risk had the 70 percent weighting and the long-term revenue and cost risk weighting was 15 percent, while others stayed the same, the Mainline's index score would fall from 2.9 to 0.7. CAPP suggested that this indicates the extreme sensitivity of the rankings to the assumed weights.

According to CAPP, TransCanada's assignment of risk is heavily influenced by its view of the Mainline as the swing pipeline. CAPP claimed that if the swing pipeline hypothesis is rejected, the ratings would collapse.

CAPP also submitted that TransCanada minimized the impact of differences in Canadian and US regulation. CAPP contended that Canadian pipelines face considerably less business risk than do US pipelines and that this affects both their financial performance and their risk profile. Factors that CAPP identified as increasing the risk of US pipelines include risk of underutilization, construction cost overrun risk, the risk of having to bear costs associated with negotiated rates and discounting, and less use of deferral accounts. CAPP also observed that in the US, the downside risk under regulation includes bankruptcy, which has happened at both the federal and state level.

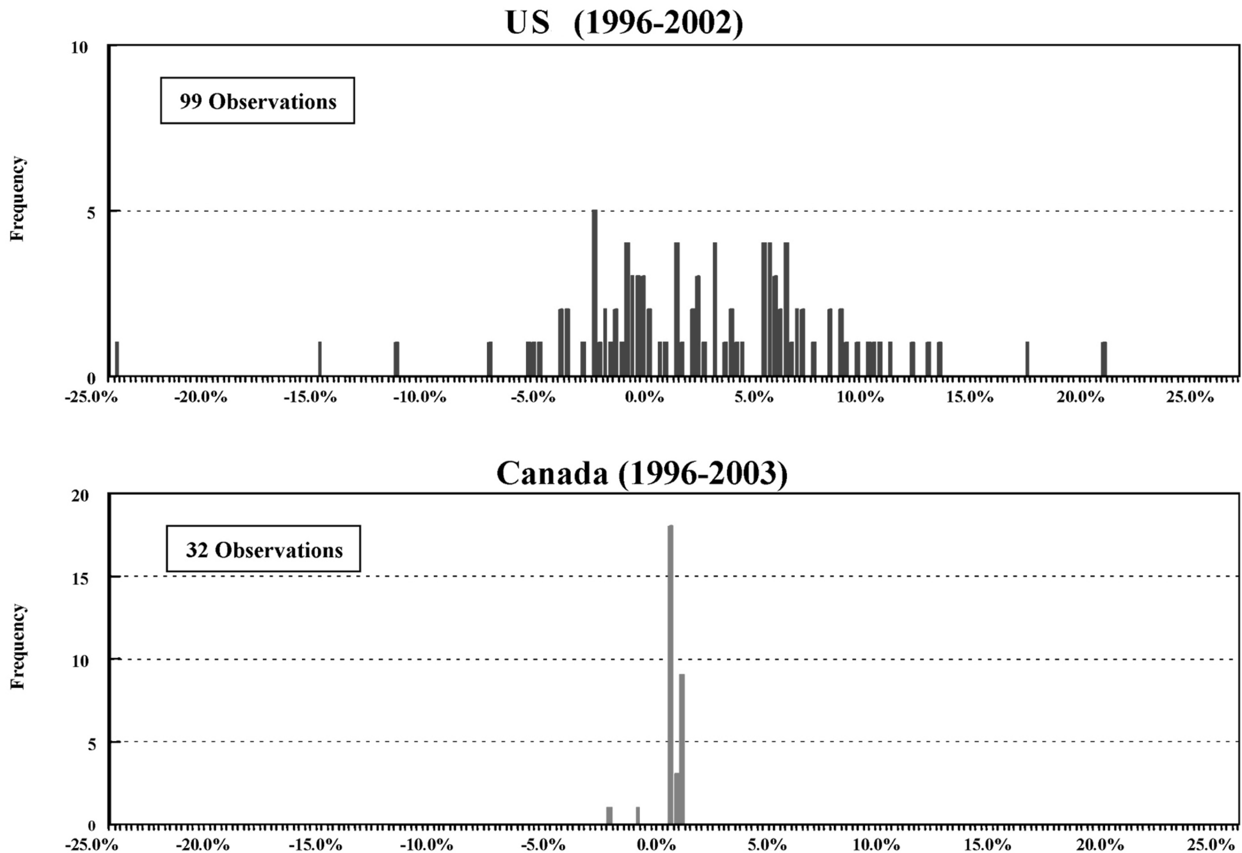
In support of its position on the difference between Canadian and US regulation, CAPP filed an analysis of authorized and earned returns for US and Canadian pipelines (see Figure 5-1). This showed Canadian returns slightly above but very close to authorized levels, while US returns varied widely from authorized levels, both positively and negatively, although skewed toward a positive variance. CAPP submitted that if the regulatory risk between the two systems were similar, one would expect to see a similar pattern between the two countries, which is not evident in the data. CAPP further observed that the statistical result for the US is consistent with regulatory policies that shift more risk to pipelines. With higher risk, one would expect to see the greater variability in excess returns and a greater average excess return as an inducement to accept more risk.

Other concerns expressed by CAPP were that TransCanada did not give proper weight to the failure of some of the pipelines to earn their allowed returns, which reflects the higher risk imposed on US pipelines; relied on inaccurate returns for Vector; and tended to overstate risk because the tendency of revenue and cost to move together was not taken into account. CAPP noted that TransCanada's risk categories were not compatible with the five risk factors assessed by the Board and raised concerns (discussed in Section 5.2.1 of these Reasons for Decision) about comparisons to Alliance, M&NP and Enbridge.

Coral

Coral argued that the relative business risk analysis was not appropriate or useful for a number of reasons. Coral suggested that TransCanada's use of the term short-term risk to describe earnings falling short of the expected return, and long-term risk to describe non-recovery of all or part of capital, does not describe the risks well since variability is a long-term phenomenon and, in principle, non-recovery risks exist even in the short term. Coral observed that parties tend to think of non-recovery risk as long term because in the short to medium term, they do not expect the Mainline to have difficulty recovering its costs. Coral asserted that TransCanada's position that non-recovery or truncation risk, with a 75 percent weighting, is three times more important than variability risk, with a 25 percent weighting, is not credible. Coral also argued that the decline in the outstanding rate base due to depreciation reduces investors' exposure to risk despite the potential for some error in the determination of the depreciation rate. This means that the heavy emphasis on non-recovery risk is excessive.

Figure 5-1
CAPP's Analysis of Actual Returns Less Allowed Returns for US and Canadian Pipelines



With respect to TransCanada's view that contract terms are a key determinant of business risk, Coral submitted that in the context of non-recovery risk many years in the future, it does not make a significant difference whether a pipeline's outstanding contract term is one year, three years, or six years. In this respect, Coral noted that the pipelines in the analysis, other than Alliance, are in similar circumstances to the Mainline.

In addition to the issue of weighting between long-term and short-term risks discussed previously, Coral suggested that the methodology appeared to be biased, citing an exaggeration of the Mainline's risks and the selection of routes in the netback analysis. Like CAPP, Coral disagreed with the rankings TransCanada assigned to the various pipelines and viewed them as arbitrary and subjective. Coral was sceptical about the value of the netback study, which was a factor in TransCanada's assignment of risk scores.

Lastly, Coral was of the view that the relationship that such a study should be looking for is between risk and the cost of capital, not risk and allowed return. Coral argued that one cannot assume that allowed returns reflect the true cost of capital for either the Canadian or US pipelines used in the analysis.

Ontario

Ontario also argued that the methodology and the analysis were flawed and the outcomes not meaningful. Ontario contended that the inclusion of six US pipelines compared with three Canadian pipelines led to a bias because of the higher risks and higher returns under the US regulatory regime. Until requested, the analysis did not include Westcoast even though that pipeline faces virtually the same business risks, including gas supply from the WCSB, pipe-on-pipe competition, and an increase in short-term contracts. Ontario noted that the information base was not the same for each of the companies since TransCanada had insider knowledge of some companies but not others.

5.2.3 Comparable Investments Available to TransCanada

Position of TransCanada

TransCanada noted that in the RH-4-2001 Decision, the Board gave little weight to evidence on comparable investments provided by TransCanada because it was limited, given confidentiality concerns, and of a nature that did not allow parties to test the claims made with respect to the relative business risk and cost of capital associated with those projects. In this proceeding, TransCanada attempted to provide additional information.

TransCanada suggested that, since it is the investor in the Mainline, the returns available to TransCanada from investing in other enterprises of like risk to the Mainline should be considered as a step in addressing the comparable investment standard. TransCanada provided evidence on alternative uses of capital available to TransCanada in the form of five US pipelines in which it has an interest, (GLGT, Iroquois, Northern Border, PNGTS and Tuscarora Gas Transmission) as well as four power projects (Curtis Palmer Hydroelectric Project, Sundance Power Purchase Agreement, ManChief Power Company, LLC and Bécancour Power Project). It also provided three pipeline investment alternatives available to third party investors (Enbridge, Alliance and M&NP). Each of these 12 investments was compared with the Mainline. This list did not include all of TransCanada's investments but only those which TransCanada considered to be of comparable risk to the Mainline. The list also excluded pipelines whose ROE is based on the RH-2-94 Formula or a similar methodology. According to TransCanada, the power investments included are characterized by long-term contracts with creditworthy counterparties. TransCanada views these contracts as being similar to cost of service methodology since most, if not all, changes in input costs flow through to customers.

With respect to US pipelines, TransCanada acknowledged that risks associated with US pipelines are not the same as the Mainline, but submitted that the difference in risk did not warrant the magnitude of the difference in allowed and achieved returns. In particular, it pointed to the difference between the returns of the Mainline and those of interconnecting pipelines carrying the same gas. TransCanada also noted that the differences in regulatory procedure between Canada and the US are not so great as to make these kinds of comparisons irrelevant and that when it comes to the element of risk that matters most to investors, namely long-term earnings and capital cost recovery, the regulatory regimes on both sides of the border have fundamentally the same design.

With respect to CAPP's position that a firm will have opportunities above its cost of capital but will benefit shareholders by investing in all projects which earn the cost of capital or above, TransCanada submitted that there are hidden costs associated with undertaking too many projects. Consequently, projects which are just at the cost of capital will turn into projects which do not earn their cost of capital.

TransCanada argued, in response to Coral's concern about TransCanada's comparable earnings information being a form of the comparable earnings test, that it did not provide this information to estimate the cost of capital, as a comparable earnings test does, but rather to demonstrate that TransCanada has alternative investments of comparable risk that offer higher rates of return.

TransCanada concluded that the comparisons with these investments support an increase in the equity ratio to 40 percent because these investments yield higher returns than the Mainline with similar or less risk.

Position of Intervenors

Intervenors raised a number of conceptual problems with the analysis and concerns about the specific information provided. CAPP stated that the investment opportunities available to TransCanada are irrelevant. A firm such as TransCanada will have multiple investment opportunities with comparable risk and with a range of returns above its required cost of capital. It should undertake all those which have a return exceeding its cost of capital. However, the returns of these investments do not determine the firm's cost of capital. Consequently, CAPP contended that while TransCanada may have better investment opportunities of comparable risk to the Mainline, this has nothing to do with a fair rate of return for the Mainline.

CAPP argued that since TransCanada's management works to ensure that its investments are earning above their cost of capital, these returns do not necessarily indicate the actual cost of capital. CAPP pointed out that the returns on these investments already form part of the broader market data that informs the tests for estimating the cost of capital. CAPP also noted that the cost of an acquisition is a factor in determining return expectations and would have influenced the return expectations of the projects that TransCanada identified in its analysis.

Even if these alternative investments were relevant, CAPP contended that TransCanada's power projects are riskier than the Mainline. CAPP stated that power risks, as identified in TransCanada's annual report, include plant availability, fluctuating market prices, regulatory risk related to restructuring of the electricity industry, risk associated with weather and risks related to uncontracted capacity. CAPP also observed that the power businesses lack the regulatory compact that the Mainline enjoys. Coral noted that there was no objective evidence on the record that the power businesses are of comparable risk.

CAPP contended that TransCanada had put this information forward primarily to support a higher return on equity, which was not at issue in this proceeding, rather than to address capital structure.

Both Coral and CAPP made the point that the sample of investments was selective. Coral raised concerns about the lack of earnings information including book returns on equity, capital structures and debt costs. Coral argued that the information provided was largely the owner's

own forecasts of earnings. CAPP also expressed concern about the limited nature of the data due to confidentiality concerns.

Coral argued that it is inappropriate to use regulated firms when comparing the appropriate return of the Mainline with other companies because it makes the analysis circular. In doing so, the Board would be basing its decision with respect to the Mainline on what other regulators do. Coral contended that TransCanada's comparable investment information is actually a version of the comparable earnings test but without its rigour. Coral noted TransCanada's statement that the equity risk premium and the discounted cash flow cash flow analyses are market-based approaches such that stock prices adjust if authorized returns are too high or too low. Consequently, the circularity issue is not a concern using these approaches. However, with returns based on book values, as TransCanada's comparable investment information is, the circularity issue remains.

Lastly, both CAPP and Ontario submitted that there are major differences in US and Canadian regulatory frameworks that render the comparison with US pipelines inappropriate.

5.2.4 Views of the Board

Comparisons to Alliance, M&NP, Enbridge and Westcoast

The Board finds that comparisons with the returns of other pipelines of similar risk may be informative, provided that circularity concerns are properly addressed and that comparisons take into account differences in circumstances.

The Board finds that since the returns of Alliance, M&NP, Enbridge and Westcoast did not result from regulatory decisions following contested cost of capital hearings, their returns can be examined without raising concerns of circularity.

With respect to differences in circumstances, the Board notes that some of these pipelines' returns were set at a time when the cost of capital was higher than it is currently. Further, two of the pipelines, Alliance and M&NP, locked in their returns for a number of years. A higher return may be required for bearing the risk associated with locking in returns or rates over an extended period of time. TransCanada recognized this when it stated that generally a higher ROE would be required for locking in a return for 15 years rather than for five years. To make comparisons relevant, adjustments to the returns of these pipelines to reflect these different circumstances are warranted.

The Board does not agree with TransCanada's proposition that Enbridge is of comparable risk to the Mainline. The Board notes that it has traditionally viewed oil pipelines as riskier than gas pipelines, given oil pipelines' common carrier status supported only by monthly nominations, and because of operational complexities arising from the multi-product

nature of their operations. None of the evidence presented by TransCanada supports the conclusion that the changed environment in which the Mainline operates has reduced or eliminated these differences in business risks. Further, even if these pipelines were of comparable risk, the Board notes that Enbridge's financial parameters have been determined through negotiation for the past decade and are reflective of the package agreed to for an oil pipeline at the time those settlements were negotiated, not of cost of capital for a gas pipeline in 2004. The Board gave no weight to the comparison with Enbridge.

The Board is of the view that Westcoast is of similar, albeit not necessarily identical, risk to the Mainline and that its recently agreed upon common equity ratio reflects current conditions. However, the Board notes that Westcoast's equity ratio is a result of a negotiated settlement that specifically states that no single component of the agreement should be considered as acceptable to Westcoast or any of the stakeholders in isolation from all other aspects of the agreement. Nonetheless, Westcoast's agreed upon equity ratio provides some evidence that the Mainline's current equity ratio is not considerably underestimated.

The Board does not agree with TransCanada's evidence suggesting that the Mainline faces more business risk than M&NP, noting that contracts can mitigate risks, but cannot eliminate them and that M&NP's backstop arrangements will expire in approximately 15 years. Further, the Board is of the view that TransCanada failed to adequately consider differences in circumstances facing M&NP. In the GH-6-96 Decision,[48] the Board concluded that M&NP can be viewed as having the same business risk as other Group 1 pipelines, but that it faces substantially different circumstances. The Board noted in that Decision that M&NP was a greenfield project, that its only sources of gas were new and untested fields, that it would be serving an untested market in Canada, and that it was facing significant competition for its anchor market in the US Northeast. The return of M&NP reflects these different circumstances. In addition, any comparison with M&NP must take into account that the return was locked in for a number of years. With respect to TransCanada's suggestion that M&NP's regulatory risk is lower because it is operating under a multi-year settlement, the Board does not accept that the existence of such a settlement has a measurable impact on regulatory risk.

The Board accepts that the level of risk faced by Alliance is sufficiently similar to the Mainline to make comparison relevant. However, when making comparisons, there is validity in adjusting Alliance's return to account for differences in circumstances. In particular, prior to comparing it with the Mainline, the return of Alliance should be adjusted to reflect the

48 National Energy Board GH-6-96 Reasons for Decision, Sable Offshore Energy Project and Maritimes & Northeast Pipeline Project, December 1997, at p. 15

different risk-reward relationship of the two pipelines and the cost of capital environment that existed at the time that Alliance's return was set. Unlike the Mainline, Alliance took on construction cost risk, locked in its return over an extended period of time, and took on some capacity risk. On the other hand, Alliance's long-term contracts tend to mitigate, in part, these additional risks. Comparison with Alliance's return ought to account for the different set of circumstances, including construction cost risk, whether such a risk was mitigable or not, and differences in the cost of capital and interest rate environment that prevailed at the time the return was set.

In summary, while the Board finds the comparisons with Alliance, M&NP and Westcoast informative and qualitatively useful, the different circumstances of these pipelines make it difficult to use these comparisons to arrive at a definitive equity ratio for the Mainline.

Relative Business Risk Analysis

The Board recognizes that TransCanada attempted to address, through its relative business risk analysis, the concerns expressed by the Board in its RH-4-2001 Decision about meaningful comparisons between pipelines. The Board finds the framework for TransCanada's relative business risk analysis to be transparent and systematic. As such, it helps guide and focus the discussion and is a convenient way of summarizing TransCanada's viewpoint. It also provides a useful mechanism for testing the sensitivity of various assumptions.

However, while the Board found the framework useful, it disagrees with some of the assumptions made in TransCanada's analysis, including the weights to be applied to various categories, the ratings assigned to various pipelines, the pipelines included in the analysis, and the returns used by TransCanada. With respect to the issue of the appropriate weights for short-term as opposed to long-term factors, the Board does not accept the implication of TransCanada's analysis that the factors that increase earnings variability in the short-term represent little or no risk in the long-term. The Board notes that the results of the analysis were highly sensitive to the assumptions made with respect to relative weights and the assignment of risk rankings.

With respect to comparisons with US pipelines, the Board's view is that these companies are different businesses operating in a different regulatory, policy and financial context. These differences limit the meaningfulness of direct comparisons between the returns of Canadian and US pipelines. The Board notes that US pipelines are subject to risks not borne by the Mainline, including, among others, risk of underutilization, construction cost overrun risks and risks associated with discounted and negotiated rates. As evidence of the regulatory differences

between the two countries, the Board notes CAPP's evidence pertaining to earnings variability in the two countries (see Figure 5-1).

TransCanada acknowledged that risks associated with US pipelines are not the same as the Mainline, but contended that the difference in risk did not warrant the magnitude of the difference in allowed and achieved returns. While providing a framework for comparing various pipelines, TransCanada's relative business risk analysis did not adequately address differences in risk between US and Canadian pipelines. Accordingly, the Board gave little weight to the return evidence of US pipelines.

The Board notes that TransCanada's risk rankings of various pipelines were influenced by its views of the Mainline as the swing pipeline, a view that the Board did not find persuasive, as discussed in Chapter 4.

The Board also had serious concerns about the subjectivity and reliability of CAPP's risk rankings for various pipelines. Overall, the Board gave little weight to either TransCanada's relative business risk analysis or to that of CAPP; however, they were useful tools for examining the evidence and positions of the parties.

Comparable Investments Available to TransCanada

The Board agrees with intervenors that the earnings information for the group of pipeline and power investments selected by TransCanada for comparison does not provide information useful in assessing the cost of capital for the Mainline. However, the Board is cognizant of TransCanada's statement that this information was provided, not to estimate the cost of capital, but to demonstrate that TransCanada has alternative investment opportunities available that it considers to be of comparable risk.

The Board notes that the credit rating agencies and equity analysts view the power business as riskier than the Mainline, as acknowledged by TransCanada's witnesses. The Board does not accept that the power projects put forward by TransCanada as alternative investments are of comparable risk to the Mainline, even though the selected power investments may be of less risk than TransCanada's power investments as a group, or of power investments in general. In this regard, the Board finds it significant that, unlike the Mainline, these selected power investments are not subject to a regulatory compact which influences the risk-reward framework for an investment. Further, little or no information was provided regarding the way in which the power investments were financed. Consequently, the Board placed little weight on the information on power investments provided by TransCanada.

Conclusion - Other Comparable Investments

Overall, the comparisons with Canadian pipelines, the relative business risk analysis and the evidence pertaining to alternative investments available to TransCanada suggest that the current equity ratio of the Mainline is not considerably understated.

Chapter 6

Financial Integrity and Capital Attraction

Position of TransCanada

TransCanada indicated that there is a legal requirement for the Board to determine a return that is fair to the equity investor in the Mainline, and that will allow the Mainline to compete successfully for the capital necessary to fund its anticipated and potential requirements.

It was submitted by TransCanada that an overall return on capital (ATWACC) of 6.3 percent (deemed equity ratio of 40 percent, ROE of 9.56 percent, and after-tax cost of debt of 4.14 percent) would improve the Mainline's current financial integrity and, in turn, its ability to attract capital on a stand-alone basis. TransCanada expressed the view that the currently allowed return on capital for the Mainline does not meet the financial integrity standard. It contended that, at present, the Mainline can attract capital but only to maintain the going concern value of the asset (for example, to invest in maintenance capital). In that respect, TransCanada indicated that it will invest the necessary capital to maintain standards of safety and security on the Mainline at least at their current levels. It also suggested that on a stand-alone basis, the Mainline would attract capital at higher cost and on more restrictive terms and conditions than TransCanada.

TransCanada estimated the Mainline's capital expenditures to be $44 million in 2004, but submitted that the Mainline's ability to access capital markets in the short-term should not be the issue. TransCanada indicated that the Mainline's ability to access capital in the future depends upon the returns available to equity investors and the financial stability and creditworthiness that can be demonstrated by TransCanada to fixed income investors. TransCanada also discussed the importance of US capital markets and viewed the US as an important source of capital for future investments.

According to TransCanada, credit ratings provide an indication to suppliers, customers, and investors regarding the financial stability of a company. TransCanada suggested that credit ratings are a critical element in determining a company's ready access to the capital markets and that credit ratings and liquidity concerns have risen to the forefront of investor attention.

TransCanada indicated that it currently has a credit rating of 'A2 stable' from Moody's Investors Service (Moody's), 'A stable trend' from Dominion Bond Rating Service (DBRS) and 'A-/negative outlook' from S&P. TransCanada submitted that ratings agencies are demonstrating a growing concern with the weak financial profiles of Canadian utility companies and there have been several downgrades over the past three years reflecting these concerns.

TransCanada submitted that if regulatory bodies do not respond to the changes driven by competitive and market realities, Canadian utility companies will experience further credit erosion and, in turn, loss of financial flexibility. TransCanada contended that this erosion would result in its downgrade unless the Board increases the deemed common equity ratio of the Mainline.

In TransCanada's view, an increase in the Mainline's return on capital, through an increase in the equity ratio, is required to achieve appropriate coverage on an interest and cash flow basis. While noting that S&P and possibly Moody's now place greater reliance on other ratios, TransCanada maintained that an interest coverage ratio of 2.0 for the Mainline would not be sufficient to support an 'A' credit rating.

TransCanada indicated that S&P relies on three key global utility benchmark ratios: funds from operations (FFO) interest coverage; FFO to total debt; and debt to capital. However, TransCanada contended that S&P has a stated policy of placing greater emphasis on the two FFO ratios than on the debt to capital ratio. Table 6-1 summarizes the Mainline's various financial ratios from 1999 to 2003 and resulting ratios at various levels of common equity for 2004; namely FFO to total debt, FFO interest coverage, and interest coverage.

Table 6-1
Mainline Financial Ratio Summary

Historical Mainline Ratios

Year	1999	2000	2001	2002	2003
FFO to Total Debt [1] (percent)	8.9	9.3	9.9	10.8	12.3
FFO Interest Coverage (times)	1.99	2.06	2.13	2.21	2.40
Interest Coverage[2] (times)	1.54	1.67	1.71	1.86	1.91

Resulting 2004 Mainline Ratios at various Equity Ratios

Equity Ratio (percent)	33	34	35	36	37	38	39	40
FFO to Total Debt [1] (percent)	12.2	12.5	12.9	13.2	13.6	14.0	14.3	14.7
FFO Interest Coverage (times)	2.45	2.48	2.50	2.52	2.54	2.55	2.57	2.59
Interest Coverage without redemption (times)[3]	1.94	n.a.[5]	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Interest Coverage with redemption (times)[4]	1.93	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	2.20

1 The Mainline's 2004 FFO to total debt ratios at various equity ratios were calculated using the appropriate FFO reported in TransCanada's response to NEB information request 4.1b, divided by one less the equity ratio and multiplied by the Mainline's capitalization of $8.274 billion as of 30 June 2004 reported in TransCanada's response to NEB information request 1.4.

2 The Mainline's interest coverage ratios for the years 1999 to 2003 were calculated using earnings before interests and taxes (EBIT) from TransCanada's Response to NEB information request 1.35(b) divided by the appropriate interest expense (including JSDs' interest) from TransCanada's response to NEB information request 2.3(a), as updated.

3 Assumes redemption of the 8.75% JSDs and 8.50% Debentures, as per TransCanada's response to NEB information request 2.2(f).

4 Assumes no redemption of the 8.75% JSDs and 8.50% Debentures, as per TransCanada's response to NEB information request 2.2(f).

5 Not available

The target level for each ratio varies depending on the rating level (for example, 'A' or 'BBB') and on the business profile score. The business profile score reflects varying levels of risk within a ratings level. TransCanada noted that S&P assigns a business profile score on a scale of one (lowest risk) to ten (highest risk) to each of the companies it rates in the utility and power sector. TransCanada indicated that its consolidated business profile score is a three and suggested that its power business, on a stand alone basis, would have a business profile score around a six. TransCanada acknowledged that the credit rating agencies and the equity analysts view the power business as more risky than the regulated Mainline. TransCanada also provided evidence stating that S&P expects TransCanada, on a consolidated basis, to maintain a minimum FFO to total debt ratio of 14 percent and an FFO interest coverage of 2.6. The S&P benchmark ratios that are relevant to the Mainline's likely business profile score appear in Table 6-2.

Table 6-2
S&P 'A' Rating Benchmark Ratios for 2004

	Business Profile Score	
	2	**3**
FFO to Total Debt (percent)	12.0 - 20.0	15.0 - 25.0
FFO Interest Coverage (times)	2.0 - 3.0	2.5 - 3.5

TransCanada indicated it is committed to maintaining an 'A' credit rating and expressed the view that if it were downgraded to a 'BBB' credit rating, its ability to access capital markets would be impaired. Its marginal borrowing costs would increase; the value of its outstanding debt would decrease; the amounts made available by lenders would decrease; and the debt term to maturity would decrease. TransCanada submitted that these changes would be exacerbated as several major institutional investors would be required to sell their debt holdings because they would be significantly overweighed in the 'BBB' credit rating category. It noted that institutional investors in Canada maintain investment guidelines that, among other things, restrict the amount of 'BBB' debt they can hold.

TransCanada submitted that the Board regulates the Mainline under the stand-alone principle, which requires the Board to consider the Mainline separately and distinctly from TransCanada. However, TransCanada acknowledged that the Board can and should consider relevant evidence about TransCanada and its credit metrics in reaching its decisions.

According to TransCanada, cross subsidization of Mainline credit is occurring at the consolidated level. To support this view, it referred to a report from S&P that suggested that TransCanada's Canadian pipelines' financial performance and business profile are more in line with a 'BBB+' ratings category, while the consolidated financial profile is rated 'A-'. TransCanada also submitted that the assessments of Moody's and DBRS support its position that the Mainline's current capital structure does not provide sufficient support to the financial integrity of the stand-alone entity.

As further evidence that the Mainline is subsidized by the consolidated entity, TransCanada stated that, over the last five years, it has been moving the capital structure of the consolidated

entity towards 40 percent common equity. TransCanada submitted that its unregulated businesses are less leveraged than its regulated businesses, and it is the unregulated businesses that are allowing the consolidated entity to maintain its 'A-' rating.

Position of Intervenors

CAPP expressed the view that no significant changes have occurred in business risk or financial integrity that would justify an increase in the Mainline's deemed capital structure. CAPP submitted that the change in the Mainline's depreciation rate approved in the RH-1-2002 Decision increased the Mainline's cash flow and improved its financial integrity.

CAPP submitted that the Mainline has just as much, if not more, financial flexibility now as it had at the time of the RH-4-2001 Proceeding and there is no need to make changes to the Mainline's capital structure to improve access to capital, particularly since the rate base is declining. CAPP stated that the overall conditions in the bond market indicate that the spreads on corporate debt are tighter now than they were in 2001, such that utilities can access debt markets more easily.

It was suggested by CAPP that the most dramatic re-evaluation of credit standards has occurred as a result of S&P harmonizing credit ratings between the US and Canada following its acquisition of the Canadian Bond Rating Service. CAPP submitted that, as a consequence of this harmonization, S&P has employed a quantitative approach and taken standard ratios and judgments drawn from the US and applied them in Canada with little qualitative adjustment for the different institutional environment.

CAPP expressed the view that the Mainline has a good investment grade bond rating with its currently allowed ROE and common equity ratio and that an appropriate common equity ratio is one that, in conjunction with the allowed ROE, enables a pipeline to maintain its credit and attract capital. CAPP submitted that maintaining credit is not the same as maintaining a particular credit rating and that, in turn, there is no need to target a particular credit rating. CAPP suggested that a sale of TransCanada stock by institutional investors would only be triggered if more than one credit rating agency downgraded TransCanada to the 'B' credit rating range.

CAPP suggested that there is no evidence supporting the contention that the Mainline's capitalization is subsidized by TransCanada's non-regulated businesses. CAPP noted that the capital structure of a firm may be viewed in several ways, and that the common equity ratio in TransCanada consolidated was relatively stable in the 35 percent range over the 2001-2003 period. CAPP noted that the 33 percent deemed equity in the Mainline is not out of line with the figures for the consolidated firm.

With respect to TransCanada's contention that it has been moving the consolidated entity's capital structure towards 40 percent equity, CAPP noted that just prior to TransCanada's acquisition of GTN, the consolidated balance sheet included over one billion dollars in cash, and TransCanada reported a common equity ratio of 39.1 percent for the consolidated entity. This increase in the consolidated equity ratio, according to CAPP, was temporary while TransCanada was accumulating cash to fund its acquisition of GTN. On 1 November 2004, TransCanada

closed the GTN deal, which was financed through a combination of cash and assumed debt, resulting in a consolidated common equity ratio of 34.8 percent on a pro forma basis, which was in line with what it had been since 2001.

CAPP also pointed to the RH-2-94 Decision, in which the Board indicated that it was not convinced that evidence regarding a consolidated equity ratio that is different from the deemed ratio necessarily indicates the existence of cross subsidization, and that the primary issue was whether or not there is an impact on debt costs.

Ontario contended that the Mainline's financial integrity remains strong, and that it has the ability to attract capital, if necessary. Ontario suggested that TransCanada's application relies excessively on the reports of credit rating agencies, and in particular S&P. Ontario noted that TransCanada was not downgraded in 2004 and submitted that there is no evidence that the company was in danger of a credit downgrade by S&P, DBRS, or Moody's.

Coral submitted that there is little difference between the capital structures of the non-regulated businesses, TransCanada's Canadian regulated pipelines, and the consolidated entity.

Views of the Board

The Board is of the view that the Mainline's financial integrity has improved continuously over the last five years, arising in part from higher depreciation rates and a higher common equity ratio. As shown in Table 6-1, the Mainline's key financial ratios have improved each year from 1999 to 2003. In the Board's view these financial ratios indicate that the Mainline has the ability to meet its current and future financial obligations.

While the Board must regulate the Mainline as a stand-alone entity, the Mainline accesses capital markets through its parent. Therefore, it is affected by TransCanada's credit ratings. The Board notes that, while there are some differences in opinion amongst the three credit rating agencies (DBRS, S&P, and Moody's) concerning TransCanada's financial integrity, the underlying message from these agencies is that, given the evolving nature of the business, TransCanada's Canadian regulated pipelines, including the Mainline, should lower their financial risk. The Board also notes the comment in a 2004 S&P published report to the effect that TransCanada's Canadian pipelines' financial performance and business profile are more in line with the 'BBB+' ratings category.

The Board does not consider it appropriate to set a specific credit rating target. However, the Board accepts that should credit rating agencies downgrade TransCanada below the grade Canadian institutional investors generally require for the majority of their holdings, it could increase the Mainline's cost of debt and equity capital, and limit the number of investors able to hold TransCanada's securities. Although the Mainline's declining rate base and associated revenue earning potential may mean

that the maintenance of a high rating in the future will become increasingly challenging, at this time, the Board considers the maintenance of a strong financial position to be a prudent objective for the Mainline.

The Board is not persuaded that the Mainline is being subsidized by TransCanada's unregulated businesses. The Board acknowledges that there are several acceptable accounting approaches to present and compare the Mainline and consolidated capital structures. However, in order to assess whether cross subsidization is taking place, the Board considers it most appropriate to look at consolidated capital structures that exclude cash intended to fund large-scale acquisitions and include non-recourse debt of joint ventures. While the Board recognizes TransCanada's stated objective to move the equity ratio of the consolidated entity towards 40 percent, the Board is of the view that the Mainline is a low-risk pipeline, and need not be capitalized in the same manner as TransCanada's consolidated business. TransCanada has been diversifying into operations that are riskier than its pipeline operations, and its consolidated capital structure should reflect the consolidated risk, not that of the Mainline only.

Although the key financial ratios indicate that the Mainline's financial integrity has improved over the last five years, given the market's perception of the Mainline's level of prospective business risk, a reduction in financial risk, through an increase in its common equity ratio, is warranted in order to ensure that the Mainline continues to maintain its financial integrity and its ability to attract capital on reasonable terms and conditions.

Chapter 7

Capital Structure

For reasons summarized in previous chapters, TransCanada sought approval of a common equity ratio of 40 percent for the Mainline, while all active intervenors expressed the view that the Mainline's equity ratio should remain unchanged at 33 percent.

Views of the Board

As recognized by TransCanada in final argument, the determination of fair return is not an exact science. Although the law is clear as to the standards the Board must meet in setting a fair return (see Chapter 2), what weight a specific piece of evidence or methodology should be given is, as was stated by the Federal Court of Appeal in *TransCanada v. NEB,*[49] a matter of judgment.

In these Reasons, the Board has expressed its views in respect of the main elements of evidence and argument presented by TransCanada and the intervenors. Except in situations where the Board has indicated that it gave no weight to a particular element, the Board found all of the evidence presented relevant and useful. Indeed, in those instances where the Board stated that it gave limited weight to an element, this does not indicate that the element was of questionable or doubtful value, but illustrates the fact that in this proceeding, no single piece of evidence was determinative of the Board's decisions. Rather, it is the body of the evidence, that is, the combined effect of several factors, many of which were given limited weight individually, that guided the Board's judgment.

Having considered all the evidence presented, the Board is of the view that a capital structure comprised of 36 percent deemed common equity and 64 percent debt is most appropriate for the Mainline. In the Board's view, a 36 percent equity ratio recognizes the increase in business risk to which the Mainline is exposed.

In coming to this determination, the Board has explicitly considered the standards set out in Chapter 2 of these Reasons. As discussed in that chapter, it is the Mainline's overall return on capital, resulting from the combination of the Mainline's capital stucture, ROE and cost of debt (set out in Section 8.1), that must be examined in light of these standards. When examining the cost of capital for the Mainline, the Board is of the view that, since the Mainline's tolls recover the actual rather than the market cost of debt, establishing a fair total equity return is the paramount

49 *TransCanada v. NEB, supra* note 8 at para. 32

concern in this case when ensuring that a fair return on capital has been determined.

The Board finds that the overall equity return and overall return on capital resulting from the decisions in this hearing will ensure that the Mainline's returns meet the comparable investment standard. The returns will be in line with those of Canadian pipelines found to be of comparable risk. Further, the Board finds that the resulting risk-reward profile of the Mainline will not be out of line with that of other comparable investments presented in this hearing.

The Board is also of the view that a common equity ratio of 36 percent and the resulting overall return on capital will meet the financial integrity and capital attraction standards. Given the Board's assessment of the Mainline's business risk, the resulting Mainline financial ratios will be reflective of a strong credit rating for a low risk utility. With the resulting financial parameters, the Mainline will continue to maintain and even improve its financial integrity and its ability to attract capital on reasonable terms and conditions. In the Board's view, the Mainline's resulting level of financial risk will be commensurate with the level of business risk it faces.

Decision

The Board approves an increase to the Mainline's common equity ratio from 33 percent to 36 percent.

The Board approves a percentage of debt in the Mainline's capital structure of 64 percent.

Chapter 8

Other Matters

8.1 Cost of Debt

TransCanada's applied-for 2004 revenue requirement reflected an average cost of debt of 8.73 percent. The average applied-for amount and cost of funded debt reflected TransCanada's proposed redemption in July 2004 of the 8.50% Debentures and the 8.25% JSDs.

TransCanada initially sought a determination that the actual incurred cost of debt allocated to the Mainline was reasonable, but withdrew its request for such a direction in its 29 July 2004 evidence. TransCanada did not redeem the 8.25% JSDs in 2004. The 8.50% Debentures were redeemed, but on 1 November 2004. Nonetheless, TransCanada requested, in its July evidence, that the Board approve the initially applied-for average cost of debt of 8.73 percent, effectively seeking a cost of debt reflective, in part, of a deemed cost, rather than actual incurred cost of debt allocated to the Mainline.

Consistent with the RH-4-2001 Decision, TransCanada estimated the pre-funded cost of debt as being equal to the average cost of the Mainline's funded debt, which is made up of First Mortgage Pipe Line Bonds, Debentures, Medium Term Notes and the JSDs.

With respect to unfunded debt, TransCanada applied for a cost rate of 3.11 percent. In January 2005, TransCanada indicated that its actual cost of short-term financing for the twelve months ended 31 December 2004 had been 2.49 percent.

Views of the Board

The Board is of the view that the cost of debt to be included in the Mainline's 2004 revenue requirement should reflect the actual cost incurred to finance the Mainline's deemed level of debt.

Debt allocated to the Mainline by TransCanada and forming the Mainline's funded debt includes First Mortgage Pipe Line Bonds, Debentures, Medium Term Notes and the JSDs. The Board notes that TransCanada's applied-for cost of funded debt is not reflective of actual cost, since it assumes a redemption that did not occur and another redemption that occurred at a date different than had been forecast. The Mainline's 2004 cost of funded debt should reflect the fact that the 8.25% JSDs were not redeemed in 2004 and the actual date at which the 8.50% Debentures were redeemed. As part of its compliance filing, TransCanada should file revised schedules reflecting these two changes.

The Board notes that the Mainline's funded debt is likely to exceed, at times, the deemed debt level of 64 percent in the Mainline's capital

structure. The Mainline capitalization is therefore expected to include a certain level of pre-funded debt. Consistent with the RH-4-2001 Decision, any pre-funded debt should be assumed to have a cost equal to the average cost of the Mainline's funded debt. This approach effectively allocates back to TransCanada a slice of the funded debt, equal to the excess in funded debt, which had previously been assigned to the Mainline.

Should the Mainline's capitalization require the use of unfunded debt, the cost of unfunded debt should reflect TransCanada's actual cost of short-term financing for the twelve months ended 31 December 2004, which is 2.49 percent.

Decision

TransCanada is directed to file as part of its compliance tolls filing detailed calculations of the Mainline's 2004 cost of debt reflecting:

- **a cost of funded debt that reflects that the 8.25% JSDs were not redeemed in 2004 and the actual date at which the 8.50% Debentures were redeemed;**
- **a cost of pre-funded debt equal to the cost of funded debt; and**
- **a cost of unfunded debt of 2.49 percent.**

8.2 Effective Date

The Phase II List of Issues included, as Issue 3, the appropriate effective date for any change to the Mainline's cost of capital. This section focuses on the appropriate date of any change to the Mainline's common equity ratio.

Position of TransCanada

TransCanada's application proposed 1 January 2004 as the effective date to implement any changes to capital structure. TransCanada submitted that the Board can deal with any changes in tolls on a retrospective basis, which would permit the collection of any difference in tolls arising since 1 January 2004 from tollpayers in future rates.

TransCanada noted that it had proposed to redeem the 8.25% JSDs on 30 June 2004 and did not object to any equity thickness that would be awarded for that reason to also be effective 30 June 2004, rather than 1 January 2004.

TransCanada pointed to a heavy regulatory calendar (e.g., NGTL General Rates Application and Generic Cost of Capital proceedings, both before the Alberta Energy and Utilities Board; and the

Mainline Phase I and North Bay Junction proceedings) as the main driving factor behind the date of filing of its 2004 Tolls Application. TransCanada also submitted that other factors that delayed the processing of Phase II were beyond its control. In particular, TransCanada noted that Phase II could not take place until after the Federal Court of Appeal decision was issued on TransCanada's Appeal of the RH-R-1-2002 Decision.

Position of Intervenors

CAPP indicated that it is always easier to implement change on a go-forward basis, but acknowledged that the effective date could be 1 January 2004. In addition, CAPP argued that TransCanada had the duty to file its application early enough for any change to be effective early in the test year.

IGUA expressed its opposition to any retroactive increases in tolls. IGUA submitted that the Board should consider the significance of any cost associated with the retrospective introduction of changes to the Mainline's cost of capital, and if necessary, consider levelling adjustments into the future.

Views of the Board

While the Board would have expected an application seeking a change to cost of capital to be filed much earlier than the end of January of the applicable test year, the Board accepts that the late filing can be explained by the complexity surrounding the appeal by TransCanada of the Board's RH-R-1-2002 Decision. In this instance, the Board is of the view that it would be reasonable to make the changes to the Mainline's capital structure effective 1 January 2004.

Decision

Changes to the Mainline's capital structure shall be effective 1 January 2004.

8.3 Expected Duration of the Decision

While TransCanada's application related to the 2004 Test Year, TransCanada expressed the view that to the extent the company was comfortable with the Phase II Decision, it may be capable of enduring for a period longer than one year.

TransCanada initially argued that the Board has the jurisdiction to make a decision that allows more or less than what is asked for and could therefore make a decision that is for a longer period of time than requested by the Applicant. However, TransCanada submitted that in order to do so, the evidence in this case would need to justify reaching the conclusion that the duration of the order should be something other than what was applied for. In reply argument, TransCanada clarified its position and submitted that the Board should not, in its Decision, be

purporting to determine a cost applicable to future years. Nonetheless, the Board could provide guidance in its Decision, similar to that provided in the RH-2-94 Decision, when it expressed the expectation that it did not favour routine readjustments to capital structure.

CAPP argued that the Board was being asked to make judgments about issues and risk factors that span years and decades. As a result, CAPP submitted that the views of the Board in this instance will have an enduring effect. CAPP submitted that a well-founded judgment on issues of an enduring nature should continue to be applied in the future, unless circumstances change. CAPP further submitted that providing guidance as to what the Board would like to see in future proceedings in order to address certain issues would be helpful.

Ontario submitted that although the Board has the theoretical discretion to extend the application of its decision on capital structure for 2004 beyond that year, it would be unwise to do so in this instance. Ontario expressed the view that discretion must be exercised fairly and properly which, it submitted, requires reasonable notice to all potential participants in the proceeding in order to be procedurally fair.

Views of the Board

The Board acknowledges that its decisions in this instance apply solely to the 2004 Test Year but reiterates the statements made in the RH-2-94 Decision that it does not favour routine reassessments of capital structure. However, the Board is always prepared to consider a reassessment of capital structure in the event of significant change in business risk, in corporate structure, corporate financial fundamentals, or other changes of significance.

8.4 Tolls Resulting from this Decision

Views of the Board

The Board notes that the RH-2-2004, Phase I Decision was the subject of two review and variance applications to the Board; one filed by CAPP and one by Coral and the Cogenerators Alliance. At the time of writing this Decision, some aspects of these review and variance applications remain outstanding. Therefore, the Board is of the view that the Mainline’s 2004 Tolls should remain interim, at their current level, pending the outcome of those aspects of the review applications that could impact the 2004 revenue requirement.

The Board requests that TransCanada file for approval of final tolls within 30 days of the later of either the release of the Phase II Decision or the Board’s disposition of those aspects of the review applications of the Phase I Decision that could impact the 2004 revenue requirement.

When TransCanada files for final 2004 tolls, the Board is of the view that it would be appropriate for TransCanada to adjust the 2005 revenue requirement for the difference between the 2004 interim and 2004 final tolls, along with applicable carrying charges. However, should TransCanada and the TTF prefer another form of adjustment, TransCanada may include such a proposal as part of its compliance filing.

Decision

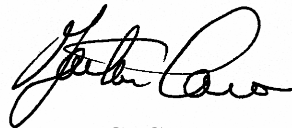
TransCanada shall file final tolls schedules with the Board for approval within 30 days of the later of either the release of the Phase II Decision or the Board's disposition of those aspects of the review applications of the Phase I Decision that could impact the 2004 revenue requirement. The filing shall reflect the Phase II Reasons for Decision and the decisions of the Board regarding the issues from Phase I.

Chapter 9

Disposition

The foregoing chapters together with Order AO-3-TGI-07-2003 constitute our decisions and Reasons for Decision in respect of those aspects of the 2004 Tolls Application heard by the Board in Phase II of the RH-2-2004 Proceeding.

The Board is of the view that the decisions reached in Phase II of the RH-2-2004 Proceeding are consistent with the comparable earnings, financial integrity and capital attraction standards set out in Chapter 2 of these Reasons for Decisions and will result in a fair return for the Mainline. Further, the Board is satisfied that the decisions reached in this phase of the hearing, in combination with the Tolls and Tariff provisions which were the subject of Phase I, will result in tolls that are just and reasonable for the 2004 Test Year.



G. Caron
Presiding Member

J.S. Bulger
Member

D.W. Emes
Member

Calgary, Alberta
April 2005

Appendix I

Board Ruling on CAPP's Motion of 4 June 2004

Issued by letter dated 30 June 2004.

TransCanada filed its 2004 Tolls Application on 26 January 2004. With respect to cost of capital, TransCanada sought to increase its level of deemed common equity from the current 33 percent to 40 percent and to increase the approved return on equity (ROE) from the current 9.56 percent to 11 percent.

The Board issued Hearing Order RH-2-2004 on 23 March 2004 and stated that it would not be appropriate to initiate procedural steps with respect to Phase II, the cost of capital component of the 2004 Tolls Application, until after the release of the Court of Appeal Decision with respect to TransCanada's Appeal of the Board's RH-R-1-2002 Decision. The Court of Appeal Decision denying TransCanada's appeal was released on 16 April 2004.[1]

On 12 May 2004, TransCanada advised the Board that, in light of the Court of Appeal Decision, it would not seek variance from the RH-2-94 ROE Formula for 2004 which yields an ROE of 9.56 percent. TransCanada also indicated that it would maintain its 2004 Tolls Application position concerning its applied-for capital structure of 40 percent deemed common equity for 2004. On 28 May 2004, TransCanada filed related amendments to the 2004 Tolls Application.

On 4 June 2004, the Canadian Association of Petroleum Producers (CAPP) filed a notice of motion with respect to Phase II. CAPP requested the Board to:

a) direct that the correctness of the RH-4-2001 Decision is not an issue in the RH-2-2004, Phase II Proceeding;

b) direct that evidence as to capital structure must begin and end on the basis that the NEB Formula ROE is the fair ROE;

c) direct that evidence as to capital structure must focus on significant changes that have occurred since the RH-4-2001 Decision;

d) strike the evidence of Drs. Kolbe and Vilbert, Mr. Murphy, and Dr. Carpenter;

e) strike Appendix 1 to Appendix B-2 (Comparable Investments) and Appendices 2 (Business Risk: Company Profiles) and 3 (Business Risk: Comparative Business Risk Ratings) to Appendix B-3[2] in TransCanada's corporate evidence;

f) direct TransCanada to remove from Appendices B-1 (Overview), B-2 (Fair Return Evidence) and B-3 (Business Risk) of its corporate evidence all portions that fail to

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1 *TransCanada Pipelines Ltd. v. National Energy Board,* [2004] F.C.A. 149.

2 The identification of the appendices was clarified in TransCanada's comments and CAPP's reply.

conform with directions (a), (b), and (c) above or that relate to evidence that has been struck; and

g) provide such further or other direction as the Board may consider just.

CAPP stated that even though TransCanada has withdrawn the request for an 11 percent ROE, it has not withdrawn the evidence previously filed that supports an 11 percent ROE and has not refocused the evidence on the appropriate deemed level of equity. Consequently, it is left to the parties to "figure out what is and is not relevant to capital structure as distinct from ROE."[3] CAPP notes that it is unfair and inefficient for parties to be faced with large amounts of highly technical and detailed material that is irrelevant.

CAPP noted that while TransCanada's amended application is based on 9.56 percent ROE, TransCanada continues to assert that 9.56 percent ROE is not fair and that a fair return would be 11 percent ROE on 40 percent common equity. CAPP argued that as a matter of law, the fair ROE for 2004 is the ROE produced by the Board's RH-2-94 Formula and that the correctness of the Formula, the RH-4-2001 Decision, and the RH-R-1-2002 Decision is no longer open to question.

It was submitted by CAPP that the fundamental question to be examined is what changes in business risk, in corporate structure, or in corporate financial fundamentals have occurred since capital structure was last decided in the RH-4-2001 Decision.

CAPP further stated that the evidence of Drs. Kolbe and Vilbert derives a fair return of 11 percent ROE on 40 percent common equity from a determination of the overall cost of capital (ATWACC) of sample companies. Under this approach the ROE and capital structure are inextricably linked. Both are contained in the ATWACC; hence if the Board agreed with the ATWACC methodology and 40 percent common equity, it would also be agreeing with the appropriateness of an 11 percent ROE. CAPP concluded that it is unfair and prejudicial to other parties to allow the evidence of Drs. Kolbe and Vilbert to stand.

By letter of 7 June 2004 the Board sought submissions of parties with respect to the motion. On 11 July 2004, the Industrial Gas Users Association (IGUA), and the Cogenerators Alliance and Coral Energy Canada Inc. filed letters in support of CAPP's motion. IGUA submitted that, for evidence regarding the appropriate level of deemed equity to be relevant, it must be confined in its scope to addressing any material changes in circumstances since the final day of the test years covered by the RH-4-2001 Decision. Furthermore, it must focus solely and exclusively on the issue regarding the appropriate level of deemed common equity. IGUA further submitted that the evidence of Mr. Lackenbauer and Mr. Engen should also be struck as it is far too broad and fails to satisfy the relevance test with respect to the appropriate level of deemed common equity issue.

TransCanada filed its answer to the CAPP motion on 16 June 2004. TransCanada submitted that the CAPP motion is entirely devoid of merit and should be dismissed. TransCanada expressed its view that the cost of capital requires *four* distinct decisions by the Board: (1) the forecast cost of debt; (2) the rate of return on equity; (3) the level of deemed common equity; and (4) the fair

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3 CAPP motion dated 4 June 2004, at para. 13(b)

return on equity capital. It acknowledged that to date, the Board has only made one of the four determinations: the 9.56 percent ROE. TransCanada did not dispute the applicability of the Board Formula to determine the ROE as the Federal Court of Appeal upheld the Formula approach and TransCanada is not applying for review and variance of the Formula in 2004.

TransCanada stated that "as a matter of law, it is the return on equity capital (not the rate of return in isolation, or the level of deemed equity in isolation) that is subject to the fair return standard."[4] It argued that all of the evidence is addressed to the fair return on equity capital and therefore, all is relevant to the issues that remain to be determined by the Board in Phase II. TransCanada stated that Dr. Kolbe was asked to estimate the fair return on total capital, debt and equity combined, and the fair rate of return on equity at a 40 percent common equity ratio. TransCanada's position is that 40 percent common equity will bring the overall return closer to this level.

TransCanada stated that in respect of Mainline capital structure there is a "clean slate" for 2004 and that the RH-4-2001 and RH-2-94 Decisions do not apply to 2004. It submitted that it is the Board's legal obligation to hear an application that is placed before it and that TransCanada's filing on cost of capital in Phase II is directed to persuading the Board that the fair return on equity capital should be different and higher than that which was determined for 2001 and 2002.

On 22 June 2004, CAPP filed a response to TransCanada, in which it stated that under the method adopted by the Board to determine cost of capital, fair return is simply the arithmetic result of three determinations: (1) cost of debt; (2) ROE; and (3) capital structure. There is no fourth, separate determination of a fair return. The fair return on equity capital is simply the arithmetic result of the ROE and the proportion of deemed common equity in the capital structure. CAPP argued that TransCanada could only raise the fair return on equity in its entirety by putting the ROE into issue which they have chosen not to do.

CAPP also addressed TransCanada's "clean slate" argument and stated that a decision by the Board on capital structure is intended to stand until there are significant relevant changes that warrant a change in capital structure. CAPP noted that the RH-4-2001 and RH-R-1-2002 Decisions applied to 2003, not only to 2001 and 2002 as TransCanada stated. CAPP submitted that TransCanada is seeking to attack the correctness of the RH-4-2001 Decision which is no longer open to question since any possible attack has been closed by the RH-R-1-2002 Decision and the appeal judgment.

Views of the Board

Rate of Return on Equity

The Board notes that all parties who submitted comments on CAPP's motion agreed that the rate of return on equity for the Mainline has been set for 2004 at 9.56 percent by the application of the RH-2-94 ROE Formula. The applicability of the RH-2-94 ROE Formula for the Mainline was continued by the Board's RH-4-2001 Decision. TransCanada sought review and variance of the RH-4-2001 Decision, which was denied by the Board's RH-R-1-2002 Decision. The

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4 TCPL submission dated 16 June 2004, at paragraph 17

RH-R-1-2002 Decision was subsequently appealed by TransCanada to the Federal Court of Appeal. The Court denied TransCanada's appeal on 16 April 2004. The opportunity to appeal the Court's decision has expired.

In its reason for judgment, the Court noted that the Board Order TG/TO-1-95, which implemented the RH-2-94 Decision, contained no time limit and therefore continues in force until reviewed or varied by the Board.[5] On 12 May 2004, TransCanada advised the Board that it was not prepared to advance a review and variance application in 2004, and that, in light of the Court Decision, it will not contest the applicability of the RH-2-94 ROE Formula of 9.56 percent to the Mainline for 2004.

On this basis, it is clear that the correctness of the RH-4-2001 Decision and the appropriateness of the RH-2-94 ROE Formula are not at issue in the RH-2-2004 Proceeding. The Board is therefore of the view that it would be inappropriate to consider evidence or arguments that state or suggest otherwise. Given that TransCanada has chosen not to file a review application on this issue, it is not open to it to submit that the appropriate ROE for the Mainline is something other than 9.56 percent, no matter what the views of the company may be. TransCanada cannot do through indirect means, that which it has chosen not to do directly. Therefore, the Board is of the view that TransCanada needs to amend its evidence to eliminate all instances which suggest that the appropriate rate of return on common equity for the Mainline in 2004 is anything other than 9.56 percent.

Capital Structure

The Board notes a clear divergence of views between parties concerning the appropriate evidence to be considered with respect to a determination of capital structure for the Mainline in 2004. CAPP submits that evidence as to capital structure must focus on significant changes that have occurred since the RH-4-2001 Decision. IGUA further submits that the scope should be confined to any material changes in circumstances which have occurred since the last day of the test years covered by the Board's RH-4-2001 Decision. TransCanada on the other hand submits that with respect to capital structure, there is a clean slate for 2004.

The Board is of the view that the law does not prescribe a particular approach to the nature of the evidence that should be filed in support of an assessment of appropriate capital structure. An applicant is therefore free to adopt the focus it deems appropriate in preparing evidence concerning capital structure. The same freedom also applies to any intervenor wishing to file evidence on this issue. The appropriate weight that any specific approach or piece of evidence should be given is a matter subject to argument after the evidence has been heard and is to be determined by the Board in making its decisions, not prior to hearing. In this context, the Board does not consider that it would be appropriate to issue a direction to TransCanada concerning the focus of its evidence pertaining to capital structure.

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5 *Supra* note 1 at paragraph 50

Fair Return on Equity and Fair Return on Capital

The Board has consistently arrived at a determination of the overall level of fair return on equity by applying the approved rate of return on common equity to the deemed level of common equity in a pipeline's capital structure. Under this approach, the Mainline's fair return on equity for 2004 would be the RH-2-94 ROE of 9.56 percent applied to the appropriate level of deemed common equity that will be determined by the Board in Phase II of the RH-2-2004 Proceeding. This approach does not require the consideration of particular evidence pertaining to overall equity return.

Similarly, the Board's determination of overall cost of capital, or return on rate base, has been accomplished by calculating the weighted average of the cost of each component by its share in the Mainline's deemed capital structure. This approach has been recognized by the Federal Court of Appeal in *TransCanada Pipelines Ltd. v. Canada (National Energy Board)*.[6]

While the Board is willing to consider alternative approaches to determine the fair return on equity and capital, the Board is mindful that in this instance, any alternative approach considered should recognize that the rate of return on equity for the Mainline in 2004 has already been determined to be 9.56 percent, through the application of the RH-2-94 Formula, and that the RH-2-94 Formula continues in force until reviewed or varied by the Board. Since TransCanada has not advanced a review and variance application in 2004, it would be inappropriate for the Board to consider alternative approaches that directly or indirectly question the correctness of the rate of return on common equity derived by the application of the RH-2-94 Formula to the Mainline in 2004. In other words, the Board is not prepared to undertake, through the consideration of alternative approaches to return on equity or return on capital, an indirect review of the RH-2-94 Decision. Such a review should only be contemplated through a review and variance application filed under subsection 21(1) of the NEB Act, or at the discretion of the Board.

Board Ruling

The Board is of the view that portions of TransCanada's evidence are not relevant to Phase II of the RH-2-2004 Proceeding, as they suggest that the rate of return on equity for the Mainline in 2004 should be other than 9.56 percent. Instances of such examples appear throughout TransCanada's evidence, such that the Board does not consider that it would be practical for the Board itself to go through TransCanada's evidence and decide what portions of it should be struck or amended.

Rather, the Board directs that TransCanada file amendments to its evidence in such a way as to remove any direct or indirect inferences to an appropriate rate of return on equity other than 9.56 percent for the Mainline in 2004 on or before noon, Calgary time, 15 July 2004.

As a result of the impending revised evidence from TransCanada, the Board has decided to amend the deadlines contained in paragraphs 28 and 29 of Hearing Order RH-2-2004. Attached is Order AO-2-RH-2-2004, amending Hearing Order RH-2-2004.

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6 *Supra* to note 1

Appendix II

Board Ruling on CAPP's Letter of 4 August 2004

Issued by letter dated 12 August 2004.

The National Energy Board has received CAPP's letter of 4 August 2004 in which it expressed the view that TransCanada has not complied with the Board's direction of 30 June 2004. The Industrial Gas Users Association filed a letter supporting CAPP's comments on 6 August 2004.

CAPP had filed a notice of motion dated 4 June 2004 requesting, *inter alia*, that the Board strike certain TransCanada evidence from the record on the basis that the evidence asserted that a rate of return on equity (ROE) other than that derived from the Board's RH-2-94 ROE Formula (9.56 percent) was the fair return for 2004.

The Board ruled that as TransCanada had decided not to seek a review of the RH-2-94 ROE Formula, it is not open to TransCanada to submit that the appropriate ROE for the Mainline in 2004 is something other than 9.56 percent. TransCanada was directed to amend its evidence to eliminate all instances which made such a suggestion.

Further, the Board ruled that while it is willing to consider alternative approaches to determine the fair return on equity capital, any alternative approach must recognize that the ROE for the Mainline has been determined to be 9.56 percent. The Board stated that it would be inappropriate for it to consider alternative approaches that directly or indirectly question the correctness of the rate of return on common equity derived by the RH-2-94 ROE Formula.

As a result the Board directed TransCanada to amend its evidence to remove any direct references or indirect inferences to an appropriate rate of return other than 9.56 percent for the Mainline in 2004.

Parties have expressed diverging views on whether ATWACC evidence implies an indirect review of the Board's RH-2-94 ROE Formula. The Board reiterates its 30 June 2004 ruling that it will not allow TransCanada, through its ATWACC or other evidence to do indirectly that which it has chosen not to do directly. However, in the Board's view, TransCanada should be allowed to present its case as it relates to the issues to be addressed in Phase II of the RH-2-2004 hearing in the manner it deems appropriate, so long as the rules of natural justice are respected. While the Board will not, at this time, require TransCanada to further amend its filings, the Board cautions TransCanada and all parties, that it is not prepared to consider this evidence if its purpose is to suggest an indirect review of the RH-2-94 Formula.

Appendix III

Board Ruling on TransCanada's Motion of 12 November 2004

Issued from the Bench on 19 November 2004.

Background

TransCanada PipeLines Limited filed an application with the National Energy Board on January 26th, 2004, for the approval of tolls for the Mainline for 2004. Among other things, TransCanada sought the rate of return on equity of 11 percent on a common equity ratio of 40 percent.

On March 23rd, the Board issued the RH-2-2004 Hearing Order and indicated that it had decided to convene a two-phase oral hearing to consider the application. Phase I was to consider all matters raised in the application with the exception of cost of capital, which the Board indicated, would be heard in Phase II. The Board noted that it would not be appropriate to initiate further procedural steps in relation to the cost of capital component of the 2004 tolls application until after the release of the Federal Court of Appeal decision with respect to TransCanada's appeal of the Board's RH-R-1-2002 Decision.

On April 6th, the Federal Court of Appeal released its decision denying TransCanada's appeal of the Board's Decision in the RH-R-1-2002 Review[1]. By letter dated May 12th, TransCanada advised the Board that, in light of the Court Decision, it would not seek variance from the RH-2-94 ROE Formula for 2004 which yields a rate of return on equity of 9.56 percent for 2004. On May 28th, TransCanada filed related amendments to its 2004 Tolls Application, reflecting the applied for 9.56 percent ROE on a common equity ratio of 40 percent. The Board issued an amended Hearing Order (AO-1-R-2-2004) on June 7th which removed the appropriate rate of return on common equity for the Mainline as an issue to be addressed in Phase I.

The Canadian Association of Petroleum Producers filed a notice of motion on June 4th, 2004 requesting that the Board narrow the issues to be considered in Phase II. The balance of the relief requested focused on having portions of TransCanada's evidence struck from the record.

On June 30th the Board ruled that portions of TransCanada's evidence were not relevant to Phase II of the RH-2-2004 Proceeding, as those portions suggested that the rate of return on equity for the Mainline in 2004 should be other than 9.56 percent. The Board directed that TransCanada amend its evidence to remove any direct or indirect references to an appropriate rate of return on equity other than 9.56 percent for the Mainline in 2004.

On August 4th, the Board received a letter from CAPP in which it expressed the view that TransCanada had not complied with the Board's direction of June 30th. The Board responded

1 *TransCanada PipeLines Ltd. v. National Energy Board, et al.,* [2004] F.C.A. 149

with a letter dated August 12th, which reiterated the points made in its earlier ruling, including the fact that it would not allow TransCanada, through its ATWACC or other evidence, to do indirectly that which it has chosen not to do directly; that is, to seek a review of the RH-2-94 ROE Formula. However, the Board also stated that TransCanada should be allowed to present its case as it relates to the issues to be addressed in Phase II of the RH-2-2004 Hearing in the manner it deems appropriate, so long as the rules of natural justice are respected.

On October 19th, 2004, CAPP filed its evidence with the Board, the subject of which forms the basis of the motion filed by TransCanada.

TransCanada's Motion

On November 12th, TransCanada filed a motion requesting clarification regarding the issues to be considered in Phase II of RH-2-2004 and the parameters for the conduct and disposition of the proceeding. TransCanada requested that the Board hear the motion orally, prior to reply evidence which must be filed by November 25th, in order to give guidance to TransCanada with respect to this evidence, as well as the nature and extent of cross-examination in the hearing. On November 15th, the Board set down the motion for consideration today and allowed for written submissions to be filed by November 18th. Written submissions were received from the Industrial Gas Users Association and le Procureur général du Québec. These comments and the oral submissions made today by TransCanada, CAPP, and Coral Energy Canada Inc. have all been appreciated and have assisted the Board in reaching its decision on this matter.

In reaching its decision, the Board has been mindful of the comments made by parties regarding the efficiency of the process. The Board is of the view that this is a goal worth striving for, and we are of the view that hearing this motion at parties' convenience, before the hearing, and issuing an oral ruling shows our commitment to that goal. However, the Board also notes the comments today that regulatory efficiency cannot override:

- the legal principles;
- the rights of a party to present its case as it determines fit; or
- the needs of the Board to hear all, and the best evidence before reaching a decision.

Request (a) of the Motion

The first request by TransCanada is for a direction that "as a matter of law, the determination that is to be made by the Board in Phase II is the fair return on investment in the TransCanada Mainline for 2004".

The Board is very familiar with the law as set out in *Northwestern Utilities (1929)*, *Hope* and *Bluefield* on this issue. However, the Board notes that TransCanada has chosen not to apply for a review of the rate of return on equity. This hearing is therefore not an examination of all elements of cost of capital or fair return. Hearing Order AO-1-RH-2-2004 identifies the issues which, in the Board's view, require decisions, namely:

1) the appropriate capital structure for the Mainline;

2) the appropriate cost of debt for the Mainline, including any financial impact resulting from debt redemption; and

3) the appropriate effective date for any change to the Mainline's cost of capital.

Both CAPP and TransCanada have stated today that they are not attempting to limit the ability of the other party to present its case. In the Board's view, what was in dispute in the CAPP motion in June, and what is in dispute now, is the methodology that will be employed in order to arrive at a determination of the overall level of fair return on equity. The Board understands that TransCanada is seeking to have the Board consider return using a different methodology than the traditional methodology. To this end, the Board confirms its previous ruling that it is willing to consider alternative approaches to determine the fair return on equity and capital.

However, for the purposes of this ruling, the Board is not prepared to limit itself to the specific wording used in TransCanada's motion. The Board's responsibility according to the *National Energy Board Act* is to set just and reasonable tolls. The determinations which the Board has to make in Phase II of this Proceeding are decisions on the issues set out in the List of Issues, resulting in a decision on the application filed by TransCanada. By making decisions on the issues set out in the List of Issues, and utilizing the rate of return on common equity from the RH-2-94 formula, the end result will be the overall return on investment for the Mainline for 2004. TransCanada is free to submit evidence and argue that an alternative approach should be utilized in making these determinations. The Board cannot, and will not, prior to hearing all of the evidence, make a determination on which approach or approaches should be used.

Request (b) of the Motion

TransCanada's second request is for a direction that "as a matter of law, the issues to be considered in the determination of the fair return on investment in the Mainline for 2004 are not limited to any changes in the business risk and financial integrity of the Mainline since the RH-4-2001 Decision."

The Board has considered the law as set out in the motion and as discussed by parties in their submissions, and agrees with TransCanada that as a matter of law, it is not limited to arguing changes to risk and financial integrity since the RH-4-2001 Decision. As the Board stated in its ruling on CAPP's motion on this very issue on June 30th:

> The Board notes a clear divergence of views between parties concerning the appropriate evidence to be considered with respect to a determination of capital structure for the Mainline in 2004. CAPP submits that evidence as to capital structure must focus on significant changes that have occurred since the RH-4-2001 Decision. IGUA further submits that the scope should be confined to any material changes in circumstances which have occurred since the last day of the test years covered by the Board's RH-4-2001 Decision. TransCanada, on the other hand, submits that with respect to capital structure, there is a clean slate for 2004.

> *The Board is of the view that the law does not prescribe a particular approach to the nature of the evidence that should be filed in support of an assessment of appropriate capital structure.* An applicant is therefore free to adopt the focus it deems appropriate in preparing evidence concerning capital structure. The same freedom also applies to any intervenor wishing to file evidence on this issue. The appropriate weight that any specific approach or piece of evidence should be given is a matter subject to argument after the evidence has been heard and is to be determined by the Board in making its decisions, not prior to hearing. In this context, the Board does not consider that it would be appropriate to issue a direction to TransCanada concerning the focus of its evidence pertaining to capital structure. [Emphasis added]

The Board noted the comments of Mr. Schultz on behalf of CAPP that TransCanada is free to argue a change of approach and that CAPP is not attempting to limit the presentation of TransCanada's evidence. In keeping with our earlier rulings on this matter, while no party may argue that any other is prohibited from arguing an alternative approach, they are free to seek to show the flaws and errors of such an approach.

The Board therefore agrees with TransCanada, that TransCanada is not limited in its evidence to examining changes since 2001.

Request (c) of the Motion

The third request of the motion is for a determination that "as a matter of law, the impact on the Mainline revenue requirement and tolls of an increase in the cost of equity capital for the Mainline is not to be taken into account by the Board in the determination of the fair return on investment in the Mainline."

The Federal Court of Appeal in the *Appeal Decision* acknowledged that customers of the pipeline have an interest in ensuring that the Mainline's costs are not overstated.[2] However, in the Board's view, the Court also found that the impact of tolls on customers is an irrelevant consideration in the determination of the Mainline's cost of equity capital.[3]

While the Mainline's rate of return on equity is not an issue to be addressed in Phase II of the RH-2-2004 Hearing, the Board accepts that the impact of tolls on customers is an irrelevant consideration in the determination of other aspects of cost of capital. Therefore, the Board will not give weight to any evidence pertaining to impact of tolls on customers in making the determinations to be made in Phase II.

Request (d) of the Motion

TransCanada's final request is for the Board to confirm that it will not consider any evidence or permit any cross-examination in Phase II that is inconsistent with the law as stated in its motion. To the extent that the evidence of either TransCanada or CAPP suggests something contrary to this ruling, or any other Board ruling, the Board will not take such evidence into consideration.

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2 *Ibid*. at para. 34

3 *Ibid*. at para. 25-42

At this stage, the Board is of the view that it would be premature to rule on whether an eventual line of cross-examination would be inappropriate.

The Board would like to thank all parties for their submissions, the Board's staff, the court reporters, the interpreters for accommodating the hearing of this motion on such short notice.

Appendix IV

Mainline Throughput Forecasts and Sensitivities

TransCanada: Base Case
(Bcf/d[1])

	2005	**2010**	**2015**	**2020**	**2025**
Supply					
Conventional	16.6	15.7	14.3	10.9	7.7
Unconventional	0.2	1.0	2.5	3.6	3.9
Net Storage	-0.11	-0.02	-0.02	0.00	0.00
Mackenzie	0.0	1.0	1.5	1.5	1.5
Alaska	0.0	0.0	0.0	0.0	0.0
Total Supply[2]	**16.7**	**17.7**	**18.3**	**16.0**	**13.1**
Less: Western Canada Demand	4.6	5.8	6.3	6.2	5.8
Total Supply Available for Export	**12.1**	**11.9**	**12.0**	**9.8**	**7.3**
Throughput on Other Pipelines	6.9	7.1	7.1	5.9	4.7
Mainline Throughput	**5.2**	**4.8**	**4.9**	**3.9**	**2.6**

TransCanada: Low Case
(Bcf/d[1])

	2005	**2010**	**2015**	**2020**	**2025**
Supply					
Conventional	16.2	13.9	11.7	8.4	6.2
Unconventional	0.1	0.5	1.4	1.9	2.1
Net Storage	-0.11	-0.02	-0.02	0.00	0.00
Mackenzie	0.0	0.8	0.8	0.8	0.8
Alaska	0.0	0.0	0.0	0.0	0.0
Total Supply[2]	**16.3**	**15.9**	**15.0**	**12.4**	**9.9**
Less: Western Canada Demand	4.6	5.7	6.1	5.9	5.6
Total Supply Available for Export	**11.7**	**10.2**	**8.9**	**6.5**	**4.3**
Throughput on Other Pipelines	6.8	6.4	5.6	4.3	3.1
Mainline Throughput	**4.9**	**3.8**	**3.3**	**2.2**	**1.2**

TransCanada: High Case
(Bcf/d[1])

	2005	**2010**	**2015**	**2020**	**2025**
Supply					
Conventional	17.1	16.9	16.3	13.3	9.6
Unconventional	0.3	1.7	3.9	5.3	5.7
Net Storage	-0.11	-0.02	-0.02	0.00	0.00
Mackenzie	0.0	1.0	1.6	1.8	1.8
Alaska	0.0	0.0	0.0	0.0	0.0
Total Supply[2]	**17.1**	**19.0**	**20.5**	**18.7**	**15.6**
Less: Western Canada Demand	4.4	4.9	5.0	5.0	4.7
Total Supply Available for Export	**12.7**	**14.1**	**15.5**	**13.7**	**10.9**
Throughput on Other Pipelines	6.9	7.9	9.1	8.3	6.9
Mainline Throughput	**5.8**	**6.2**	**6.4**	**5.4**	**4.0**

TransCanada: Alaska-in Case
(Bcf/d[1])

	2005	2010	2015	2020	2025
Supply					
Conventional	16.6	15.5	13.8	10.7	7.4
Unconventional	0.02	1.0	2.5	3.6	3.9
Net Storage	-0.11	-0.02	-0.02	0.00	0.00
Mackenzie	0.0	1.0	1.5	1.5	1.5
Alaska	0.0	0.0	5.1	5.5	5.5
Total Supply[2]	**16.7**	**17.5**	**22.9**	**21.3**	**18.3**
Less: Western Canada Demand	4.6	5.8	6.8	7.0	6.6
Total Supply Available for Export	**12.1**	**11.7**	**16.1**	**14.3**	**11.7**
Throughput on Other Pipelines	6.9	7.0	9.8	9.0	7.8
Mainline Throughput	**5.2**	**4.7**	**6.3**	**5.3**	**3.9**

TransCanada: Distress Case
(Bcf/d[1])

	2005	2010	2015	2020	2025
Supply					
Conventional	15.8	11.6	9.8	7.8	n.a.[3]
Unconventional	0.1	0.5	1.2	1.4	n.a.
Net Storage	-0.11	-0.02	-0.02	0.00	n.a.
Mackenzie	0.0	0.8	0.8	0.8	n.a.
Alaska	0.0	0.0	0.0	0.0	n.a.
Total Supply[2]	**15.9**	**13.3**	**12.7**	**10.6**	n.a.
Less: Western Canada Demand	4.7	5.6	6.5	7.0	n.a.
Total Supply Available for Export	**11.2**	**7.7**	**6.2**	**3.6**	n.a.
Throughput on Other Pipelines	6.7	5.5	4.5	2.8	n.a.
Mainline Throughput	**4.5**	**2.2**	**1.7**	**0.8**	n.a.

CAPP: Base Case Sensitivity
(Bcf/d[1])

	2005	2010	2015	2020	2025
Supply					
Conventional	16.6	15.7	14.3	10.9	7.7
Unconventional	0.2	1.0	2.5	3.6	3.9
Net Storage	-0.11	-0.02	-0.02	0.00	0.00
Mackenzie	0.0	1.0	1.5	1.5	1.5
Alaska	0.0	0.0	0.0	0.0	0.0
Total Supply[2]	**16.7**	**17.7**	**18.3**	**16.0**	**13.1**
Less: Western Canada Demand	4.6	5.8	6.3	6.2	5.8
Total Supply Available for Export	**12.1**	**11.9**	**12.0**	**9.8**	**7.3**
Throughput on Other Pipelines	6.3	6.2	6.2	5.2	4.1
Mainline Throughput	**5.8**	**5.7**	**5.8**	**4.6**	**3.2**

CAPP: Low Case Sensitivity
(Bcf/d[1])

	2005	2010	2015	2020	2025
Supply					
Conventional	16.2	13.9	11.7	8.4	6.2
Unconventional	0.1	0.5	1.4	1.9	2.1
Net Storage	-0.11	-0.02	-0.02	0.00	0.00
Mackenzie	0.0	0.8	0.8	0.8	0.8
Alaska	0.0	0.0	0.0	0.0	0.0
Total Supply[2]	**16.3**	**15.9**	**15.0**	**12.4**	**9.9**
Less: Western Canada Demand	4.6	5.7	6.1	5.9	5.6
Total Supply Available for Export	**11.7**	**10.2**	**8.9**	**6.5**	**4.3**
Throughput on Other Pipelines	6.8	6.4	5.6	4.3	3.1
Mainline Throughput	**4.9**	**3.8**	**3.3**	**2.2**	**1.2**

CAPP: High Case Sensitivity
(Bcf/d[1])

	2005	2010	2015	2020	2025
Supply					
Conventional	17.1	16.9	16.3	13.3	9.6
Unconventional	0.3	1.7	3.9	5.3	5.7
Net Storage	-0.11	-0.02	-0.02	0.00	0.00
Mackenzie	0.0	1.0	1.6	1.8	1.8
Alaska	0.0	0.0	0.0	0.0	0.0
Total Supply[2]	**17.1**	**19.0**	**20.5**	**18.7**	**15.6**
Less: Western Canada Demand	4.4	4.9	5.0	5.0	4.7
Total Supply Available for Export	**12.7**	**14.1**	**15.5**	**13.7**	**10.9**
Throughput on Other Pipelines	6.9	7.9	9.1	8.3	6.9
Mainline Throughput	**5.8**	**6.2**	**6.4**	**5.4**	**4.0**

1 1 Bcf/d = 28.3 106 m3/d
2 Total Supply may not add up due to rounding and methodology used by TransCanada to estimate conventional and unconventional supply.
3 Not available

Appendix V

Order AO-3-TGI-07-2003

ORDER AO-3-TGI-07-2003

IN THE MATTER OF the *National Energy Board Act* and the regulations made thereunder; and

IN THE MATTER OF an application filed by TransCanada PipeLines Limited pursuant to Part IV of the Act for orders fixing and approving tolls that TransCanada shall charge for transportation services provided on its Mainline natural gas transmission system (Mainline) between 1 January 2004 and 31 December 2004; and

IN THE MATTER OF Hearing Order RH-2-2004.

BEFORE the Board on 15 April 2005

WHEREAS TransCanada filed an application dated 12 November 2003 for interim tolls for the Mainline effective 1 January 2004;

AND WHEREAS on 18 December 2003, the Board approved TransCanada's 12 November 2003 application, as amended on 3 December 2003, and issued Order TGI-07-2003;

AND WHEREAS TransCanada filed an application dated 26 January 2004 for an order fixing just and reasonable tolls that it may charge for or in respect of transportation services provided on its Mainline between 1 January 2004 and 31 December 2004 (2004 Tolls Application);

AND WHEREAS on 23 March 2004, the Board issued Hearing Order RH-2-2004 establishing a two-phase procedure to consider TransCanada's 2004 Tolls Application;

AND WHEREAS an oral public hearing was held in Ottawa, Ontario between 14 June 2004 and 25 June 2004 during which time the Board heard the evidence and argument presented by TransCanada and all interested parties with respect to RH-2-2004 Phase I matters;

AND WHEREAS on 23 July 2004, the Board issued Amending Order AO-1-TGI-07-2003 approving revised interim tolls effective 1 August 2004;

AND WHEREAS the Board's Decisions arising out of the RH-2-2004 Phase I Proceeding are set out in its Reasons for Decision dated September 2004, and in Order AO-2-TGI-07-2003;

AND WHEREAS applications for review of the RH-2-2004 Phase I Decision were filed by the Canadian Association of Petroleum Producers on 12 November 2004 and by Coral Energy Canada Inc. and the Cogenerators Alliance on 11 January 2005 (jointly, the Phase I review applications);

AND WHEREAS, an oral public hearing was held in Calgary, Alberta between 29 November 2004 and 4 February 2005 during which time the Board heard the evidence and argument presented by TransCanada and all interested parties with respect to RH-2-2004 Phase II matters;

AND WHEREAS the Board's Decisions arising out of the RH-2-2004 Phase II Proceeding are set out in these Reasons for Decision dated April 2005 and this Order.

THEREFORE, IT IS ORDERED, pursuant to Parts I and Part IV of the Act, that:

1. TransCanada shall file final tolls schedules with the Board for approval within 30 days of the later of either the release of the Phase II Decision or the Board's disposition of those aspects of the Phase I review applications that could impact the 2004 revenue requirement. The filing shall reflect the Phase II Reasons for Decision and the decisions of the Board regarding the issues from Phase I, including the following:

    a) the Mainline's rate of return on common equity shall continue to be based on the RH-2-94 Formula methodology;

    b) the Board approves an increase in the Mainline's deemed common equity ratio from 33 percent to 36 percent;

    c) the Board approves a percentage of debt in the Mainline's deemed capital structure of 64 percent;

    d) the effective date for reflecting these changes in capital structure for rate-making purposes shall be 1 January 2004; and

    e) any variance between the approved 2004 revenue requirement and the amounts collected pursuant to interim tolls shall be deferred and disposed of in future tolls.

NATIONAL ENERGY BOARD

Michel L. Mantha
Secretary