

## **APPENDIX 3.1**

**Terasen Gas Inc. Pension Plan for  
IBEW and COPE Members**

**STATEMENT OF INVESTMENT POLICY**

HISTORY OF THIS POLICY STATEMENT	
Adoption by Trustees or JPC*	By Trustees *
Originally adopted	May 26, 1992
Last Revised	June 15, 2005
Last Approved	June 15, 2005

\*by JPC before December 1, 1998, Trustees on and after that date.

**Terasen Gas Inc. Pension Plan for  
IBEW and COPE Members**

**STATEMENT OF INVESTMENT POLICY**

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## INTRODUCTION

This statement of policy has been approved by the Trustees of the Terasen Gas Inc. Pension Plan for IBEW and COPE Members ("Plan").

## BACKGROUND

The value of the Fund at December 31, 2004 was approximately \$140 million. Net cash flow is about \$153,000 per month into the Fund.

The Plan is funded by matching contributions from the company and employees. Benefits are based on final average earnings, and are indexed in relation to rates of investment return in excess of 5%, subject to a Consumers Price Index cap. Thus, the levels of and variations in investment returns will have an impact on company and employee contributions and on pension increases.

As of the date of the last actuarial valuation of the Plan, December 31, 2004, accrued benefits are fully funded on a going-concern basis, with a funding ratio of 108%. The solvency ratio is 99%.

Membership in the Plan is approximately as follows:

Active members	922
Inactive members	145
Pensioners	266
Total members	1,333

Responsibility for the administration of the Plan lay with the Joint Pension Committee up until December 1, 1998. From December 1, 1998 to December 31, 2001, it lay with the Trustees, consisting of two members appointed by the company, one member appointed by each of the two unions and an independent fifth member, jointly appointed by the company and the two unions. Effective January 1, 2002, the Trust Agreement was amended and the number of Primary Trustees are: one by IBEW; two by OPEIU (now COPE), one of whom will be known as the CWP-OPEIU Trustee (now ABSU-COPE); two by the Chief Executive Officer of the Company; one by the Chief Executive Officer of CustomerWorks Partnership (now ABSU); and an independent Chairman.

The Plan is registered under the Income Tax Act and under the Pension Benefits Standards Act of British Columbia (PBSA).

The Plan has adopted pension funding policies which will tend to dampen the fluctuations in the contribution rates from one actuarial valuation to the next. These policies include the use of "smoothing" techniques in determining the actuarial value of assets and 15 year amortization of actuarial gains and losses. The existence of these pension funding policies provides significant protection to the contributors and to the plan members and beneficiaries against short to medium term fluctuations in asset values and allows the investment policy to focus on long term performance to a greater degree than would be possible without these policies.

## TARGET ASSET MIX

The long term asset mix target, effective November 24, 2004, is 58% stocks, 10% real estate and 32% fixed income, as follows:

Canadian common stocks	23%
US equity	12%
International equity	13%
European private equity	5%
Canadian Real estate	10%
Canadian Bonds	22%
Canadian Mortgages	10%
Canadian Market Neutral strategy	<u>5%</u>
	<u>100%</u>

## INVESTMENT STRUCTURE

To manage the asset mix, and to diversify the investment management in order to help control risk and volatility of returns, as of February 2005, the fund has been allocated among index funds and managed funds as follows <sup>1</sup>:

Greystone Managed Investments Inc. (Cdn. stocks - growth)	11.6%
Leith Wheeler Cdn. Equity Fund (Cdn. stocks - value)	11.6%
Templeton Foreign Equity Fund (non-Cdn., non-U.S. stocks - value)	13.0%
State Street Global Advisors (U.S. stock )	12.0%
Barclays Canadian Long Bond Index Fund (Cdn. bonds)	21.0%
Barclays Canada Equity Market Neutral Strategy (Cdn. market neutral)	5.0%
Standard Life Mortgage Fund (Cdn. mortgages)	10.4%
Greystone Real Estate Fund (Cdn. real estate)	10.4%
Standard Life European Strategic Partners II (European private equity)	<u>5.0%</u>
	<u>100.0%</u>

All investments except private equity consist of units of pooled funds. The private equity investment is by way of a Limited Partnership in which the Plan holds partnership units.

### Specialty Fund Managers:

Each specialty fund manager will limit their investments to the asset class(es) appropriate to their fund identified under INVESTMENT STRUCTURE, above.

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<sup>1</sup> These fund allocations differ slightly from the long-term asset mix target above due to adjustments to account for expected cash holdings in the various funds; cash holdings are counted as debt.

### Mechanics of Adjusting Allocations

In most months, the cash flow is allocated among investment funds in accordance with the investment structure percentages noted above. The fund is re-balanced at the end of each calendar quarter, using a combination of redemptions and purchases of fund units and adjustment of cash flow, so that the holdings are brought back to approximately the percentages set out under INVESTMENT STRUCTURE, above.

In the case of the Greystone Real Estate Pooled Fund, it is not possible to perform regular re-balancing due to its illiquid nature. Therefore, it has been decided between the Trustees and Greystone to only re-balance the Greystone Real Estate Pooled Fund back to its target allocation if, at the end of a calendar quarter, the real estate fund falls outside a tolerance range around the target allocation set out under Investment Structure, above. This tolerance range is set at +/- 4.0% (i.e. lower limit of 6.4% and higher limit of 14.4%).

When re-balancing of the Greystone Real Estate Pooled Fund is required, the Trustees will issue instructions to Greystone and the Plan's custodian to increase or decrease the Plan's assets in the Greystone Real Estate Pooled Fund by the amount necessary to re-balance to the target allocation. The amount of assets specified in the rebalancing instructions will be based on asset levels in the end of quarter custodial statements. Greystone will be given the discretion to effect the re-balancing anytime within a 12-month period. The Trustees will have limited ability to alter a rebalancing instruction during that 12-month period.

Although the Trustees have allocated 5% of Plan assets to private equity in late 2003, it is expected to take several years for the Plan to reach that level of private equity investment. The private equity allocation will be funded by intermittent capital outlays over an extended period. The cash for these capital outlays will come from selling units in the Leith Wheeler International Equity Fund, as and when requested by Standard Life. It is understood that as the private equity funding increases from 0 to 5% over time, that the Leith Wheeler International Equity Fund would likewise decrease from an 18% to a 13% allocation. As a result, the Plan's overall allocation to non-Canadian, non-US equity of 18% will be re-balanced quarterly as described above, but the proportions of that allocation held in the Leith Wheeler International Equity Fund and the Standard Life European Strategic Partners II will not be rebalanced.

### Purpose of this Structure

The asset mix parameters and the allocation of responsibility inherent in this investment structure are together designed to provide:

- a) a high degree of diversification among asset classes and among decision processes, without creating undue administrative complexity or unreasonable levels of cost,
- b) the ability to react to significant changes in economic outlook,
- c) a measure of restraint on the volatility of rates of return, through the fixed income weighting and the high degree of diversification among asset classes (including real estate and mortgages as well as stocks, bonds, private equity and money market securities),

- d) a relatively high expected long-term rate of return on the total Fund through the equity weighting, and
- e) a reasonable balance between investment manager discretion, market indexing and direction by the Trustees.

### INVESTMENT OBJECTIVES

The objective of the total fund, and of each respective component of the Fund, is to maximize the long-term (from five year to thirty year) rate of return, subject to acceptable levels of risk and volatility. The acceptable levels of risk and volatility are expressed in terms of constraints and guidelines listed below.

### CONSTRAINTS

The Trust Fund is subject to the following constraints imposed by the Pension Benefits Standards Act of British Columbia, Canada Revenue Agency and by the Joint Pension Trustees.

#### Pension Benefits Standards Act

The quantitative rules in the PBSA Regulations include:

- |    |   |  |
|----|---|--|
| 1. | Maximum investment in one company's securities                            | 10% of the book value of the Fund                                    |
| 2. | Maximum proportion of the voting shares of any company                    | 30%  |
| 3. | Maximum holding in one parcel of real estate or one resource property     | 5% of the book value of the Fund at the time the investment is made  |
| 4. | Maximum aggregate holding of resource properties                          | 15% of the book value of the Fund at the time the investment is made |
| 5. | Maximum aggregate holding of real estate and resource properties combined | 25% of the book value of the Fund at the time the investment is made |

#### Income Tax Act and Canada Revenue Agency

- 1. No money is to be borrowed by the Fund, except for the purpose of acquiring real property or occasionally for 90 days or less as provided in Income Tax Regulation 8502(i).
- 2. No prohibited investment (see Income Tax Regulation 8514) may be purchased,

such as the securities of a participating employer, if the shares of that employer are not listed on one of the stock exchanges prescribed in Income Tax Regulations 3200 or 3201.

### Trustees

1. Each of the specialty fund managers shall limit their investments to their specialty asset class and cash or short-term securities.
2. Investments cannot be made in classes of securities other than those specified in item 1. above, without the written approval of the Trustees.
3. Quality Limitations

The following limitations apply separately to each fund manager<sup>2</sup>:

<u>Asset Class</u>	<u>Limitations</u>
Short term securities	Dominion Bond Rating Service (DBRS) rating of "R-1" or better, or Standard & Poor's or Moody's rating of "A-1" or better.
Bonds and Debentures	DBRS or Standard & Poor's or Moody's rating of "BBB" (high or mid, but not low) – up to 10% of bond holdings. DBRS or Standard & Poor's or Moody's rating of "A" -- up to 35% of bond holdings. DBRS or Standard & Poor's or Moody's rating of "AA" or better – balance of bond holdings.
Mortgages	First mortgage only – to limit of 75% of market value of property, on good credit risks only; not more than 65% of holdings in Ontario, not more than 40% in Quebec and no more than 35% in any other single province. Debentures secured by real estate – up to 5% of holdings.
Canadian Stocks	Listed on TSX or MSE – at least 95% of holdings.
U.S. Stocks	The portfolio will be invested in stocks listed on NYSE, AMEX or NASDAQ.
Non-Canadian, Non-U.S. Stocks	Listed on recognized national exchange; not more than 12% of holdings invested in emerging markets.

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<sup>2</sup> Unless otherwise stated, all percentage limitations shall be interpreted as a percentage of the market value of the relevant asset class managed by the fund manager.



<u>Asset Class</u>	<u>Limitations</u>
Private Equity	Investments in private equity funds managed by experienced private equity firms with a proven track record; no direct private equity holdings are permitted
Real Estate	Income producing only; not more than 66% of holdings in Ontario, and no more than 35% in any other single province; leverage is discouraged, but is permitted up to 50% of portfolio market value.
Canadian Market Neutral	The portfolio will be invested in short-term securities plus approximately offsetting long and short positions in Canadian stocks or related derivative instruments; individual long and short positions limited to 2.5%.

The investments in stocks may include income trusts. It is desirable that each such income trust contain a clause in which the Trustee of the Income Trust expressly waives any right of indemnification from the unit holders for those liabilities of that trustee which relate to the management of the underlying business from which the trust receives revenues.

#### AUTHORITY OF INVESTMENT MANAGERS

Each investment manager has full authority, acting within the above constraints, to manage all aspects of the investment of its portion of the Trust Fund, including changes in the proportion of the Section's assets to be held in each of the permitted classes of securities. This applies both to the distribution of existing pension Fund assets and to the allocation of new contributions.

The Trustees recognize that, even with the structure and the constraints listed above, the rates of return on the Fund will vary significantly, upwards and downwards, from year to year, reflecting market and economic cycles, levels of inflation, government policies and many other factors. These fluctuations should not deter the investment managers from making their best efforts to achieve the long term objectives of the fund and of their Section, subject to observance of the specified constraints.

#### POLICY ON "ETHICAL INVESTMENTS"

It is the Trustees' policy to favour investments in companies and governments which meet widely recognized ethical standards, where this is possible and practical and does not reduce the expected rate of return or increase the expected volatility of the rate of return.

## DERIVATIVES

The Trustees are very cautious in their approach to the use of derivatives, options or futures contracts. They have reviewed the policies and practices regarding such contracts of the pooled funds selected to invest the Fund, when the pooled funds were selected, and found them acceptable at that time. The Trustees accept the use of derivatives for hedging of specific financial risks but are opposed to the use of derivatives for leveraging investments.

Each pooled fund must provide the Trustees once a year with a statement of its policies regarding use of derivatives, options or futures and must advise the Trustees immediately of any change in its policies or practices. The statement must include a description of the controls in place to ensure compliance with the policies.

## SECURITIES LENDING

The Custodian of the Plan's assets may not lend directly, on behalf of the Plan, any securities or cash held by the Fund. The Trustee and Custodian of the Investment Managers may engage in securities lending. The loaned securities must be secured by collateral having a market value of 105% of the market value of the loan, and marked to market at least once daily. Securities may only be loaned to major banks and investment dealers. The Investment Manager that engages in securities lending is required to:

- report each year on whether their securities lending policy adheres to Office of the Superintendent of Financial Institutions (OSFI) guidelines for securities lending,
- fully disclose their securities lending policies to the Trustees annually, and
- notify the Trustees immediately of any changes in these policies.

## VOTING RIGHTS

The investment managers have the authority to exercise voting rights in respect of securities held by the pension Fund and should exercise these rights in what they consider to be the best interests of the pension Fund. Each investment manager is to report annually:

1. A general statement of its policy regarding proxy votes, and any change in such policy in the reporting period, and
2. The vote and the reasons for the vote for each non-routine issue and each vote against management during the period.

## VALUATION OF NON-LISTED INVESTMENTS

Investments which are not regularly traded at a public exchange and are not in units of pooled investment funds shall be valued as frequently as is practical but not less frequently than once every two years by independent appraisal or by such other method as, in the opinion of the Trustees provides a fair and reasonable value in relation to the current situation in the relevant market.

## RELATED PARTY TRANSACTIONS

The Trust Fund shall not enter into a transaction with a related party as that term is defined in Schedule III to the Pension Benefits Standards Regulations, 1985 (Canada), not even one permitted by Section 17 of that Schedule III.

### CONFLICT OF INTEREST

A conflict of interest exists whenever Terasen or an employee or agent of Terasen, a member or agent of the Trustees or any directly related party, may benefit from knowledge of, participation in, or by virtue of, an investment policy or investment decision of the Trust Fund or the Trustees.

Should an actual or perceived conflict of interest arise, the party to the conflict shall immediately disclose the conflict to the Trustees. The party to the conflict will abstain from decision making with respect to the area of conflict, unless otherwise determined permissible by unanimous decision of the Trustees.

### MANAGER'S PERFORMANCE

The performance of each investment manager will be evaluated at least semi-annually on the basis of results achieved over a period of at least four years. The total Fund and the respective Sections are expected to earn rates of return over this period which exceed the benchmarks set out in appendices B and C. In addition, the performance of the manager and pooled fund will be evaluated against the pooled fund removal criteria set out in appendix D. If any of these removal criteria are triggered, the Trustees will formally consider removing the offending pooled fund. Should the Trustees decide to retain the offending pooled fund, they will document their reasons for doing so.

It is understood that due to the unique aspects of the private equity component, that no return on capital outlays may occur for several years, resulting in a negative return in the initial years. Given there is no effective means to determine the market value of the investments, until realized upon, they are carried at book value (or less if the value is determined to have been impaired).

### WRITTEN REPORTS

The investment manager will provide written statements of:

- a) the investments held by the pooled fund (quarterly),
- b) investment outlook and forecasts (quarterly),
- c) current and proposed strategy (quarterly),
- d) policy regarding derivatives, options and futures (annually),
- e) securities lending policies, changes from the previous year and adherence to OSFI Guidelines (annually),
- f) proxy voting policy and non-routine votes (annually), and
- g) compliance with this Policy Statement (annually).

## INVESTMENT REVIEW MEETINGS

Meetings between the Trustees and each manager of a common stock fund will normally be held annually in the first quarter of each calendar year, or more frequently at such times as are mutually agreed by the Trustees and investment manager.

The investment manager's report at these meetings will normally include:

- a review of performance relative to the Benchmarks set out in Appendices B and C,
- a brief review of the transactions (both asset mix changes and significant security transactions) since the last meeting,
- a comparison of such transactions with the forecasts and strategy outlined at the previous review meeting,
- the investment manager's outlook for the economy both in the short-term (six months to one year) and the long term (five years or more) and its resulting forecasts of rates of return for each of the relevant asset classes,
- the investment strategy the investment manager intends to pursue up to the time of the next review meeting.

Meetings between the Trustees and each manager of a mortgage, real estate, private equity, market neutral equity or enhanced index fund will be held if and when considered appropriate by the Trustees. Such meetings will normally be held annually in the first quarter of each calendar year.

The Plan administrator is responsible for arranging the time and location of investment review meetings and for ensuring that all parties receive appropriate notice of each meeting.

## OTHER COMMUNICATION

A copy of this Statement of Investment Policy, and of a copy of any changes to it, will be sent promptly to each investment manager, the Custodian of Assets and the consulting actuary.

The Trustees will provide each investment manager, periodically when requested, information concerning the pension Fund and the expected cash flow. The Trustees shall also notify the investment manager in writing of any significant anticipated liquidity requirements.

Each investment manager shall notify the Trustees in writing of any significant changes in investment philosophies and policies, personnel, or organization and procedures.

Such notification in writing shall normally be between the Plan administrator and the designated representative of each investment manager.

## REVIEW OF POLICY

This Statement of Investment Policy will be reviewed by the Trustees in the fall of each year.

## APPENDIX A

### Terasen Gas Inc. Pension Plan for IBEW and COPE Members Board of Trustees

#### Statement of Investment Beliefs

**Adopted June 10, 2003**

The following investment beliefs, represent a general consensus among the Trustees.

1. Over the long term **and in most years**, stocks will outperform cash and money market securities and all forms of debt instruments (e.g., bonds, mortgages).
2. Over the long term **and in most years**, longer term bonds will outperform cash and money market securities during periods of stable and declining interest rates and will underperform cash and money markets during periods of significantly rising interest rates.
3. Over the long term **and in most years**, when compared to a passive asset mix of 50% SC Universe bond index fund and 50% S&P/TSX Composite equity index fund:
  - (a) the following investment strategies **tend to add excess return**:
    - holding a greater proportion of equities than of debt securities,
    - investment in foreign equities (U.S. and EAFE),
    - successful stock security selection,
    - successful bond selection,
    - frequent and disciplined rebalancing of the asset mix, and
    - investment in market neutral hedge funds and private equity buy-outs funds, and
  - (b) the following investment strategies **tend to reduce risk and volatility of return**:
    - diversification of the fund by adding additional asset classes (e.g., foreign stocks, real estate, mortgages),
    - diversification of the fund by imposing upper and lower limits on exposure to asset classes,
    - diversification of securities within asset classes,
    - diversification of active managers within asset classes and mandates,
    - frequent and disciplined rebalancing of the asset mix, and
    - investment in market neutral hedge funds and private equity buy-out funds.

4. Over the long term, performance of a small cap stock index will tend to be more volatile than the performance of a large cap index. However, as a result of diversification opportunities, the addition of small cap stocks to a portfolio of large cap stocks will not necessarily increase the portfolio's volatility.
5. Over the long term, but not necessarily in most years, investment in a value stock index will tend to produce performance similar to or better than investment in a growth stock index, and the performance of the value stock index will be less volatile.
6. Index funds have lower fees than managed funds. Fees for enhanced index funds fall between those for pure index funds and fully actively managed funds.
7. There is currently a reasonable likelihood of being able to select an actively managed investment fund which would outperform an index fund by more than the difference in management fees in the case of Canadian equity funds, EAFE equity funds and global equity funds.

There is significantly less likelihood of being able to select such an outperforming actively managed fund in the case of US equity funds. However, low fee, risk-constrained approaches such as enhanced index funds offer the opportunity to add incremental returns over index funds after fees.

Due to the lower volatility of bond returns relative to equity returns, it is more likely that superior long-term performance is indicative of skill in a bond manager than it is in an equity manager. In addition, the differential between active management fees and index management fees is much narrower for bonds than for equities (i.e., 15 basis points vs. 30 basis points). Therefore, a carefully selected actively managed bond fund is expected to produce similar returns after fees to index funds.

Exposure to real estate and mortgages must be obtained through actively managed investment funds as there are no real estate or mortgage index funds to invest in.

8. Balanced managers have been marginally successful in adding value through asset mix management, but the effect of asset mix management is out-weighted by the effect of security selection. Therefore, it is more effective to attempt to select specialist managers with superior security selection skills in a particular asset class than it is to attempt to select a superior balanced manager.

Balanced managers have reduced return volatility versus a passive benchmark. However, the majority of the volatility reduction has resulted from security selection decisions and is therefore available under a specialist manager structure.

There is currently little empirical experience data in Canada on Tactical Asset Allocation funds.



9. The liability structure of the plan is long term. Long term bonds

- match the liabilities better,
- provide higher returns, except in periods of significant rise in nominal interest rates, and
- produce more volatility of return

than short- or mid-term bonds.

These beliefs lead us to favour a long bond index fund over a universe or mid-term bond index fund in stable or declining interest rate environments. This call will have to be carefully reviewed on a regular basis and the choice of index fund changed if the Trustees determine there are strong grounds to expect an extended period of rising interest rates.

10. Asset mix targets should reflect these beliefs. They should also consider but not slavishly follow the results of efficient frontier and/or asset liability studies performed from time to time. Ultimately they should represent the Trustees' best judgment after considering as much relevant information as possible.

11. There is no advantage (return, risk or cost) to holding units of more than one **indexed** fund of an asset class (since most track the relevant index well), and there may be additional costs to holding units of more than one.

No single style (e.g., growth, value) of equity management will consistently outperform another and it is not possible to predict which style will outperform over any given period. Therefore, there is a risk control advantage to holding units of more than one managed fund of an asset class, with offsetting styles, in that it reduces the Plan's exposure to the worst performing style. The additional cost and complexity of the extra holding are worthwhile for an asset class which comprises a significant proportion of the Plan assets.

12. The Plan's current asset mix targets are appropriate now and are likely to remain appropriate for the next few years.

13. The Trustees' views on some of these issues will change over time as markets evolve, economic conditions change, new investment products and services are developed and proven, and the plan's liabilities change.

## RESULTING RECOMMENDATIONS

These beliefs lead, in principle, to the following recommendations as to investment structure:

<b><u>Asset Class</u></b>	<b><u>Type of Fund</u></b>	<b><u>No. of Funds</u></b>
Canadian stocks	Managed	2 (with contrasting styles)
U.S. stocks	Enhanced Indexed	1
Non-Canadian, non-US stocks	Managed	1
Real Estate	Managed	1
Canadian long-term bonds	Indexed	1
Canadian mortgages	Managed	1
Market neutral hedge funds	Managed	1
Private Equity	Managed	1

The Trustees recognize the additional complexity of the specialty management approach (as opposed to balanced management) that successive generations of Trustees will have to deal with. The Trustees hope that this Statement of Investment Beliefs will help in understanding the recommendations and, in future, managing the investment structure.

## APPENDIX B

### TOTAL FUND BENCHMARKS

<u>Nature of Benchmark</u>	<u>Benchmark</u>																												
<u>Primary Benchmark</u>	<u>Total Fund</u>																												
Relative performance	Median* rate of return for the total fund (and for each asset class) among pension funds in Canada																												
<u>Secondary Benchmarks</u>																													
Passive Fund comparison	Hypothetical portfolio invested <sup>3</sup> : <table style="margin-left: 40px;"> <tr> <td>S&amp;P/TSX Composite Index</td><td style="text-align: right;">22.5%</td></tr> <tr> <td>Russell 3000</td><td style="text-align: right;">12%</td></tr> <tr> <td>MSCI EAFE Index</td><td style="text-align: right;">17.5%<sup>4</sup></td></tr> <tr> <td>SC</td><td></td></tr> <tr> <td>Long Term Bond Index</td><td style="text-align: right;">21%</td></tr> <tr> <td>SC 91-Day Treasury</td><td></td></tr> <tr> <td>Bill Index + 7%</td><td style="text-align: right;">5%</td></tr> <tr> <td>IPD Canadian Property Index</td><td style="text-align: right;">10%</td></tr> <tr> <td>50% SC Short-Term Federal Bond</td><td></td></tr> <tr> <td>Index + 50% SC Mid-Term Federal Bond</td><td></td></tr> <tr> <td>Index plus 1%</td><td style="text-align: right;">10%</td></tr> <tr> <td>SC</td><td></td></tr> <tr> <td>91-Day Treasury Bill Index</td><td style="text-align: right;"><u>2%</u></td></tr> <tr> <td></td><td style="text-align: right;"><u>100%</u></td></tr> </table>	S&P/TSX Composite Index	22.5%	Russell 3000	12%	MSCI EAFE Index	17.5% <sup>4</sup>	SC		Long Term Bond Index	21%	SC 91-Day Treasury		Bill Index + 7%	5%	IPD Canadian Property Index	10%	50% SC Short-Term Federal Bond		Index + 50% SC Mid-Term Federal Bond		Index plus 1%	10%	SC		91-Day Treasury Bill Index	<u>2%</u>		<u>100%</u>
S&P/TSX Composite Index	22.5%																												
Russell 3000	12%																												
MSCI EAFE Index	17.5% <sup>4</sup>																												
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IPD Canadian Property Index	10%																												
50% SC Short-Term Federal Bond																													
Index + 50% SC Mid-Term Federal Bond																													
Index plus 1%	10%																												
SC																													
91-Day Treasury Bill Index	<u>2%</u>																												
	<u>100%</u>																												
Real Rate of Return comparison	CPI + 4.5%																												

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\* Median on a recognized pension fund survey

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<sup>3</sup> The actuary's long term return rate of assumption used in the actuarial funding valuation of the plan is set based on the asset mix policy adopted in this Investment Policy rather than the other way around. As a result, this return assumption is not considered to be an important investment target by the Trustees and is not employed as a total Fund benchmark.

<sup>4</sup> Given the 5% allocation to private equity is from the existing EAFE allocation, and that there is no appropriate index for measuring European private equity fund returns, the EAFE index will continue to be used as this is where the funds would otherwise be invested.

## APPENDIX C

### POOLED FUND BENCHMARKS

#### PRIMARY BENCHMARKS

Relative performance for managed funds; index comparisons for indexed funds

<u>Type of Fund</u>	<u>Comparison</u>
Real Estate	Median* pooled R.E. fund
Canadian stocks	Median* pooled Canadian equity fund
U.S. stocks	Russell 3000
Non-Canadian, non-U.S. stocks	Median* pooled EAFE stock fund
Canadian bonds	SC Long Term Bond Index
Mortgages	Median* pooled mortgage fund
Private Equity	Median* pooled EAFE stock fund
Canadian Market Neutral	Median* pooled Equity Long Short Market Neutral fund (fund universe is not restricted to funds focused on the Canadian equity market).

#### SECONDARY BENCHMARKS

Index comparisons for managed funds; relative performance for indexed funds

<u>Type of Fund</u>	<u>Comparison</u>
Real Estate	IPD Canadian Property Index
Canadian stocks	S&P/TSX Capped Composite Index
U.S. stocks	Median* pooled U.S. stock fund
Non-Canadian, non-U.S. stocks	MSCI EAFE Index
Canadian bonds	Median* pooled Canadian bond fund
Mortgages	50% SC Short-Term Government of Canada Bond Index + 50% SC Mid-Term Government of Canada Bond Index plus 1%
Private Equity <sup>5</sup>	MSCI EAFE Index
Canadian Market Neutral	SC 91-Day Treasury Bill Index + 7%

#### Real Rate of Return comparison

Canadian stocks	CPI + 5.0%
Real Estate	CPI + 4.5%
U.S. stocks	CPI + 5.0%
Non-Canadian, non-U.S. stocks	CPI + 5.0%
Canadian bonds	CPI + 4.0%
Mortgages	CPI + 4.0%
Private Equity	CPI + 5.0%
Canadian Market Neutral	CPI + 8.0%

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<sup>5</sup> When sufficient history for the private equity fund is established (likely 4+ years) it can also be compared to the European Venture Capital Association (EVCA) median. However this peer universe is often not available for up to 1 year after each year end.

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\* median on a recognized pooled fund survey

## APPENDIX D

### POOLED FUND REMOVAL CRITERIA

1. Significant deterioration in the Trustees' overall assessment of the Manager's or the Fund's
  - Reputation or ethics,
  - Investment personnel,
  - Investment disciplines,
  - Investment "style", and
  - Ownership of the firm.
2. Significant change in the Plan's Investment Structure (so that the Fund or its "style" no longer "fits" the Plan's Investment Structure.
3. For managed funds - unsatisfactory performance measured against the Fund's peer group. This would be any of:
  - 10 year below median and 4 year below median,
  - 10 year 4th Quartile (Q4) and 2 year Q4,
  - 4 year Q4,
  - 4 years out of last 5 below median, or
  - 6 years out of last 10 below median

For this purpose, the peer group is:

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• Canadian stocks</li> </ul>               | Canadian stock funds of the same style                |
| <ul style="list-style-type: none"> <li>• Non-Canadian, non-U.S. stocks</li> </ul> | EAFE (non-North American) funds                       |
| <ul style="list-style-type: none"> <li>• Canadian mortgage</li> </ul>             | Canadian mortgage funds                               |
| <ul style="list-style-type: none"> <li>• Canadian real estate</li> </ul>          | Canadian real estate funds                            |
| <ul style="list-style-type: none"> <li>• Market neutral</li> </ul>                | Canadian and non-Canadian equity market neutral funds |

4. For enhanced index funds - unsatisfactory performance measured against the Fund's benchmark index or excessive volatility relative to the index:

Unsatisfactory performance would be any of:

- 10 year below index + 0.5% and 4 year below index + 0.5%
- 10 year below index and 2 year below index,
- 4 year below index,
- 4 years out of last 5 below index + 0.5%, or
- 6 years out of last 10 below index + 0.5%

Excessive volatility would be:

- 4 year standard deviation of value-added relative to index above 1.5%

For these purposes the benchmark index is:

- US stocks Russell 3000

5. For indexed funds – unsatisfactory tracking of 4-year results or unsatisfactory cost.

Tracking should be within:

- Canadian bonds +/- 10 bp of the SC Long Term Bond Index

Cost should be below:

- Canadian bonds 16 basis points

## APPENDIX E

### PBSA COMPLIANCE CHECKLIST

The requirements of PBSA Regulation 38(4) are met in this Statement of Investment Policy as follows:

FACTOR	HOW DEALT WITH	PAGE
Stability of funding	funding policy	1
	asset class diversification	2
	securities diversification	2
Magnitude of return	asset class diversification	2
	equity exposure	2
Stability of return	asset class diversification	2
	securities diversification	2
	rebalancing	3
Categories of investments	target asset mix	2
	investment structure	2
Diversification of investments	target asset mix	2
	investment structure constraints	3
Asset Mix/Rate of return expectations	investment structure benchmarks	2 App.B, App.C
Liquidity	positive cash flow	1
Securities lending	custodian may not lend	8
	investment funds may lend,	8
	subject to constraints	
Voting rights	manager to have discretion	8
Valuation of non-listed investments	market related	8
Related party transactions	none permitted	9



## APPENDIX F

### **NON-CONFORMING POOLED FUNDS**

<u>Pooled Fund</u>	<u>Area of Non-Conformance</u>
Greystone Realty Fund	The pooled fund investment policy permits investments in i) mortgages and ii) securities or bonds where the underlying asset is a mortgage or real estate equity, and iii) non-income-producing real estate (up to 20% of the fund). The Plan's Statement of Investment Policy restricts the real estate manager to investments in income-producing real estate and cash or short-term securities.
Standard Life Pooled Mortgage Fund	The pooled fund investment policy permits investments in debentures secured by real estate with no explicit limit. The Plan's Statement of Investment Policy restricts the mortgage manager from holding more than 5% of his portfolio in such investments.
Leith Wheeler Canadian Equity Fund	Investments in income trusts are permitted in this fund provided that the manager explicitly informs the Trustees of their income trust investments on an annual basis. The Plan's Statement of Investment Policy does not permit investments in income trusts.

## APPENDIX G

ASSET MIX SPREADSHEET

## Terasen Gas Inc. Pension Plan for IBEW and COPE Members

## Asset Mix Policy – 2005 (with Manager Allocations, revised effective August 1, 2005)

## Analysis of Asset Mix Policy

## Impact of Fund Allocations

Funds	2005 Target Weight	Equity					Real Estate	Debt		Cash	Total
		Canadian Equity	US Equity	International Equity	Market Neutral Equity	Foreign Private Equity		Canadian Bond	Mortgage	Cash	
Greystone Canadian Equity	11.6%	97.0%								3.0%	100%
Leith Wheeler Canadian Equity	11.6%	97.0%								3.0%	100%
Leith Wheeler International Equity	13.0%			97.0%						3.0%	100%
State Street Global Advisors (Russell 3000)	12.0%		100.0%								100%
BGI Canadian Equity Market Neutral	5.0%				100.0%						100%
BGI Canadian Long Bond	21.0%							100.0%			100%
Standard Life Private Equity (ESP II)	5.0%					100.0%					100%
<b>Total Stock and Bond Funds</b>	<b>79.2%</b>	<b>28.4%</b>	<b>15.2%</b>	<b>15.9%</b>	<b>6.3%</b>	<b>6.3%</b>	<b>-</b>	<b>26.5%</b>	<b>-</b>	<b>1.4%</b>	<b>100%</b>
<b>Real Estate</b>	<b>10.4%</b>						<b>95.0%</b>			<b>5.0%</b>	<b>100%</b>
<b>Mortgage</b>	<b>10.4%</b>								<b>95.0%</b>	<b>5.0%</b>	<b>100%</b>
<b>Total Fund</b>	<b>100.0%</b>	<b>22.5%</b>	<b>12.0%</b>	<b>12.6%</b>	<b>5.0%</b>	<b>5.0%</b>	<b>9.9%</b>	<b>21.0%</b>	<b>9.9%</b>	<b>2.1%</b>	<b>100%</b>
		<b>Equity 57.1%</b>					<b>Real Estate 9.9%</b>	<b>Debt 30.9%</b>		<b>2.1%</b>	<b>100%</b>
<b>Target Mix</b>		<b>23%</b>	<b>12%</b>	<b>13%</b>	<b>5%</b>	<b>5%</b>	<b>10%</b>	<b>22%</b>	<b>10%</b>	<b>0%</b>	<b>100%</b>
		<b>Equity 58%</b>					<b>Real Estate 10%</b>	<b>Debt 32%</b>		<b>0%</b>	

## APPENDIX H

### HISTORY OF THE PLAN INVESTMENT POLICY

In September 1985 the assets of the predecessor to this Plan were combined with the assets of the predecessor to the BC Gas Management Pension Plan in a Master Trust Fund which operated under a common investment policy. In 1996 both Pension Plans conducted an asset mix study. The study concluded that since the two Plans had different risk profiles, different asset mixes were appropriate, and that separate investment policies be considered. The respective pension committees considered the matter and determined it would be in the interests of the members of both plans to dissolve the Master Trust and operate separate Trust Funds. The assets of this Plan are now invested through a Trust Fund ("Fund") exclusively on behalf of the Plan.

In 1992 a new asset mix policy was formulated and, in September of that year, new Fund Section managers were appointed. Fund assets were allocated 45% each to two balanced fund managers (Connor Clark and Lunn, and Integra Capital Management) and 10% to a mortgage fund manager (Standard Life). Cash flow, however, was allocated 40% to each balanced fund manager, 10% to the mortgage fund manager, and 10% to a real estate fund manager (Clarica Realty). This cash flow allocation followed the intended long term asset mix of the Plan. The initial allocation, which excluded "seeding" the real estate Section, was designed to provide the Joint Pension Committee with an opportunity to become more familiar with this asset class.

Following the asset mix study in 1996, the Joint Pension Committee reviewed the inclusion of the Real Estate Section and determined that it was indeed a desirable asset class for the Fund. In order to attain its target allocation in an orderly manner, the Plan purchased the Real Estate assets of the Management Plan and, commencing in April 1997, allocated all net contributions in respect of the Plan to the real estate Section until the total Fund asset mix approximated the long term target asset mix of the Plan.

In June 1998, based on a Statement of Investment Beliefs prepared by an ad hoc investment fund search sub-committee in May 1998 the Joint Pension Committee adopted the current asset mix targets, set out in the TARGET ASSET MIX section of this Statement. In October 1998, the Joint Pension Committee adopted specific fund allocation percentages, which were set out in the Statement of Investment Policy. The asset transfers to the new funds were each made in two instalments, one week apart.

On December 1, 1998, the Board of Trustees replaced the Joint Pension Committee.

There had been no changes in fund managers from 1992 to 1998, but the May, 1998 Statement of Investment Beliefs suggested that the Plan move from balanced stock and bond managers to specialty stock and bond managers. Rather than move in one step, and recognizing the strong asset mix performance of Connor, Clark and Lunn to that point, the Trustees replaced the Integra Balanced Fund in 1999 with a combination of specialty (CS, US, ES and CB) funds and retained the CC&L Genesis (Balanced) Fund, the Clarica Real Estate Fund and the Standard Life Mortgage Fund.

In October 2000, the allocation of funds between Canadian Stocks and Foreign Stocks

was revised in response to an increase from 20% to 30% in the foreign investment limits by Canada Customs and Revenue Agency.

In February 2001, following more favourable experience with the specialty portion of the Plan's fund manager structure than with the balanced portion of the structure, the Trustees decided to terminate the use of the CC&L Genesis Fund and in April 2001, adopted the fund allocation percentages shown in the INVESTMENT STRUCTURE section of this Statement.

In February 2002, the Trustees formally adopted the pooled fund removal criteria set out in Appendix D.

In November, 2002, in order to avoid violation of the Income Tax Act foreign content limit due to falling foreign equity market values, 1/3 of the Plan's US equity portfolio was moved into a derivatives-based synthetic index fund.

On April 1, 2003, as a result of an agreement between Clarica and Greystone Managed Investments, Greystone assumed responsibility for managing the Clarica Realty Fund. This fund is now the Greystone Real Estate Fund.

In September 2003, the Plan's US equity portfolio was moved from an indexed strategy under TD Quantitative Capital to an enhanced index strategy under State Street Global Advisors (SSgA). SSgA continued to manage 1/3 of this mandate in a synthetic index fund. Due to foreign content limit problems the synthetic proportion of SSgA's mandate was later raised to 1/2, effective November 1, 2003.

In summer 2003, the Trustees conducted an efficient frontier study in order to evaluate the Plan's asset mix. The study led the Trustees to slightly adjust the asset mix effective October 1, 2003. The total allocation to equities was increased by 3% and the total allocation to fixed income securities was decreased by 3%. Also, this study prompted the Trustees to add private equity as a new asset class to the Plan's structure. Standard Life was selected to manage the Plan's private equity investment.

Also in January 2004 London Life was replaced by Greystone Managed Investments as the Plan's Canadian Equity growth manager.

In January 2005, the Plan invested 5% of assets in the BGI Canada Equity Market Neutral Strategy. The source of the assets was a reduction in the Plan's allocation to long-term bonds from 27% to 22%. This shift had been supported by the 2003 efficient frontier study, but due to the short track records of potential Canadian equity market neutral funds, implementation was delayed until 2005.

In July 2005, the Trustees decided to transfer SSgA's synthetic U.S. equity mandate to SSgA's enhanced index U.S. equity mandate, due to the elimination of the foreign content limit.

In August 2005, Templeton was replaced by Leith Wheeler as the Plan's International Equity manager.

## **APPENDIX 7.2c**



National Energy  
Board

Office national  
de l'énergie

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## Reasons for Decision

**TransCanada PipeLines  
Limited**

**RH-2-2004**

**Phase II**

**April 2005**

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**Cost of Capital**

**Canada**

## **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**

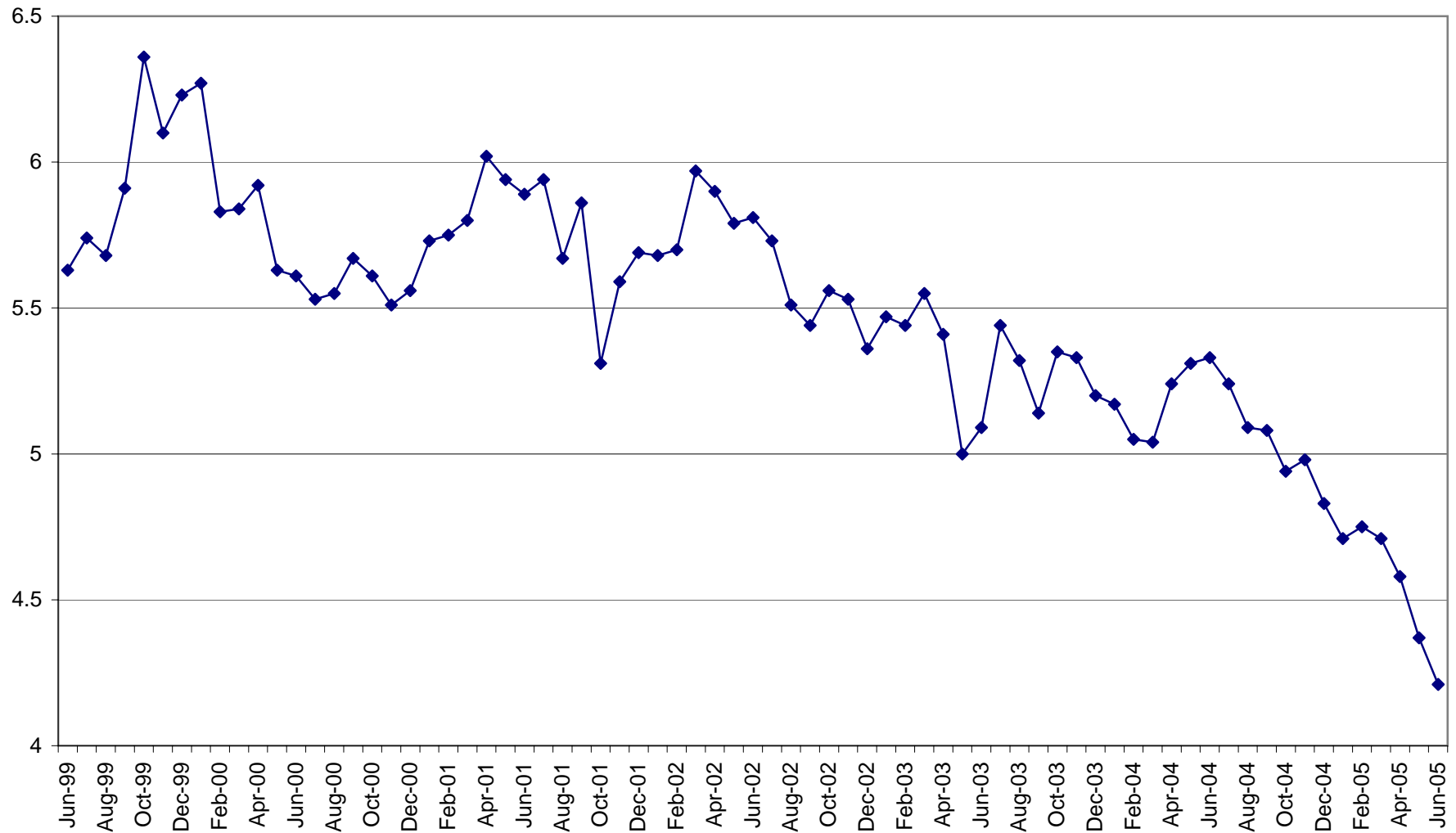
The Board finds that, overall, the business risk to which the Mainline is exposed has increased since RH-4-2001, as a result of increases in supply risk and competitive risk.



## **APPENDIX 11.1**

# Long Canada Bond Yield

## June 1999 to June 2005



## **APPENDIX 22**

## RELEVANT HISTORY OF THE “CENTRA COMPANIES”

At transcript pages 775-76 Mr. Gustafson requested that clarification be provided as to what happened to Centra Gas British Columbia Inc., Centra Gas Victoria Inc. and Centra Gas Vancouver Island Inc. The information is set out below and on the attached pages. Since references to company names causes confusion due to changes of name, the companies are identified by incorporation numbers. The name of each company as of December 1995 is in bold in each of the paragraphs describing the companies.

### **B.C. Corporation No. 0060334**

This company was incorporated in British Columbia in 1964. Its original name was Rock Gas Utilities Ltd. In October 1980 its name was changed to ICG Utilities (British Columbia) Ltd. In January 1991 its name was changed to **Centra Gas British Columbia Inc.** On January 1, 1996 its assets were transferred to B.C. Corporation No. 0236352 (then Pacific Coast Energy Corporation). On January 3, 1996 its name was changed to CGBC Holdings Inc. This company was voluntarily dissolved on November 15, 2002.

### **B.C. Corporation No. 0356486**

This company was incorporated in British Columbia in 1988. Its original name was 356486 B.C. Ltd. In 1989 its name was changed to Victoria Gas Company (1988) Limited. In 1991 its name was changed to **Centra Gas Victoria Inc.** On January 1, 1996 its assets were transferred to B.C. Corporation No. 0236352 (then Pacific Coast Energy Corporation). This company was voluntarily dissolved on November 27, 1997.

### **B.C. Corporation No. 0355320**

This company was incorporated in British Columbia in 1988. Its original name was No. 411 Dynamic Endeavours Inc. In 1988 its name was changed to Vancouver Island Gas Company Ltd. In 1991 its name was changed to **Centra Gas Vancouver Island Inc.** On January 1, 1996 its assets were transferred to B.C. Corporation No. 0236352 (then Pacific Coast Energy Corporation). On October 1, 1997 it was amalgamated with Westcoast Power Inc. and renamed Westcoast Power Holdings Inc. and then continued under the *Canada Business Corporations Act* in May 2002.

### **B.C. Corporation No. 0236352**

This company was incorporated in British Columbia in 1981. Its original name was **Pacific Coast Energy Corporation.** On January 1, 1996 assets were transferred to it from B.C. Corporation Nos. 0060334, 0356486 and 0355320. On January 3, 1996 its name was changed to Centra Gas British Columbia Inc. This company is the “Single Entity” in the Special Direction that owns and operates the natural gas facilities on Vancouver Island and the Sunshine Coast, both those owned by it prior to 1996 and those transferred from the three companies listed above.

## **APPENDIX 35.2**

Ontario Energy  
Board

Commission de l'Énergie  
de l'Ontario



**RP-2002-0158**

**IN THE MATTER OF APPLICATIONS BY**

**UNION GAS LIMITED**

**AND**

**ENBRIDGE GAS DISTRIBUTION INC.**

**FOR**

**A REVIEW OF THE BOARD'S GUIDELINES FOR  
ESTABLISHING THEIR RESPECTIVE RETURN ON  
EQUITY**

**DECISION AND ORDER**

2004 January 16

Three tests, and their variants, were employed or critiqued by the experts. All three witnesses had varying views with respect to the appropriateness of relying on the ERP test, the DCF test and the CE test. This was a large contributor to the differences between their recommendations. The other large contributor to the difference was the results arrived at by employing the same tests. The evidence of Ms. McShane, Dr. Booth and Dr. Cannon makes it clear that a great deal of judgment is involved in determining what is an appropriate ROE for a utility. Those three witnesses, along with Mr. Case, were looking at the same capital markets but came up with significantly different recommendations to the Board. However, Dr. Booth and Dr. Cannon also conceded that the current ROE Guidelines were still generally appropriate, despite their recommendations for a lower benchmark ROE. Ms. McShane was more categorical in her view that the ROE Guidelines were no longer producing a fair ROE and that a new benchmark ROE and adjustment formula were needed.

On the basis of the evidence adduced in this proceeding, we find that the reservations the Board expressed in the compendium to the current ROE Guidelines about the CE and DCF approaches and the Board's decision not to employ these tests remain valid. With respect to the CE test, we continue to be concerned with the problems associated with the assembling of an acceptable list of comparable companies against which to assess the regulated utility, as well as the selection of a suitable time period from which to draw historical evidence. We note that the subjectivity involved in the selection of an appropriate sample of comparators and the selection of the time period were the primary factors in arriving at an ROE difference of 300 basis points between Ms. McShane and Dr. Cannon. We also reiterate our concern with this test's heavy reliance on past performance as an indicator of future performance.

With respect to the DCF test, we note the sensitivity of the results to assumptions, including growth estimates. We note that as a result of different assumptions, Ms. McShane's ROE result from the DCF test is over 200 basis points higher than the results obtained by Dr. Booth and Dr. Cannon. Further, in the context of the specific applications before us, we remain uncomfortable with the results of the DCF test given that the shares of the Applicants are no longer traded on the open market.

As a result of the above, we reiterate the Board's conclusions reached when it developed the existing ROE Guidelines that the results from the CE and DCF tests should be given little or no weight for purposes of these applications.

We do not accept the suggestions by certain parties to use the approach of averaging the recommendations or to embark on tests that do not have theoretical foundation. Therefore for the purposes of this proceeding we will rely primarily on the results of the ERP test. Other than Mr. Case, all expert witnesses used this test.

There are four basic components to this test: a determination of the risk-free rate; a determination of the equity risk premium for the market as a whole; an adjustment (beta) to reflect the lower risk of utilities; and an allowance for financial flexibility or "cushion". Supplemental analysis to the basic ERP test was performed by Ms. McShane and Drs. Booth and Berkowitz.

No party has disputed the use of the long-term Government of Canada bond yield as the basis of the risk free rate, or the basis for its forecast as contained in the current ROE guidelines other than the



## **Generic Cost of Capital**

**AltaGas Utilities Inc.  
AltaLink Management Ltd.  
ATCO Electric Ltd. (Distribution)  
ATCO Electric Ltd. (Transmission)  
ATCO Gas  
ATCO Pipelines  
ENMAX Power Corporation (Distribution)  
EPCOR Distribution Inc.  
EPCOR Transmission Inc.  
FortisAlberta (formerly Aquila Networks)  
NOVA Gas Transmission Ltd.**

**July 2, 2004**



On balance, the Board concludes that the results of the ERP tests other than CAPM would generally support a 2004 ROE above the Board's CAPM estimate, but that for the reasons set out above only limited weight should be placed on the results of the ERP tests other than CAPM.

#### 4.2.5 Discounted Cash Flow Test

The Board notes from [Table 2](#) that the Applicants' standard-method DCF estimates for ROE ranged from 10.3-14.1%. The Board notes ATCO's argument that any upward bias in analyst growth estimates may be less prevalent for stable industries including utilities. Nevertheless, the Board considers that there is merit in the intervenor arguments<sup>56</sup> that the analysts' earnings forecasts used in the development of the DCF estimates have been biased high, resulting in DCF estimates that overstate the required return. The record of the Proceeding reveals no evidence on an appropriate discount to apply to the DCF test results to appropriately adjust for an overstatement in the required returns. Accordingly, the Board finds reliance on the Applicant's DCF estimates problematic.

The Board notes that Dr. Booth's DCF approach<sup>57</sup> was not based on an assessment of analysts' earnings forecasts, but was based on an assessment of the growth of the overall economy. Dr. Booth considered that the market as a whole would grow at the same rate as the nominal GDP growth rate of about 6%, which would indicate a total investor market return of 8.5% after including average dividends of 2.5% (which included an estimated 0.5% to account for share repurchases as surrogate dividends). Dr. Booth indicated that this was a geometric market return estimate and therefore under estimated the average short-run growth rate, since the arithmetic rate exceeds the geometric rate. Dr. Booth further indicated that his DCF analysis confirmed that an 8.12% allowed ROE for a regulated utility was fair and reasonable. However, the Board notes that Dr. Booth did not quantify the impact of converting from a geometric rate to an arithmetic rate, did not quantify, in this case, the impact of utilities having less risk than the market average, and did not add an allowance for flotation costs.

As a result of the above noted concerns, the Board concludes that no weight should be placed on the results of the DCF tests presented in this Proceeding.

#### 4.2.6 Comparable Earnings Test

The Board notes that several Applicants indicated that the comparable investment test, envisioned in the court decisions referred to in Section 3 of this Decision, obligated the Board to place weight on the CE test.<sup>58</sup> However, in the Board's view, the CE test is not equivalent to the comparable investment test. The CE test measures **actual** earnings on **actual book value** of comparable companies, which, in the Board's view, does not measure the return "*it would receive if it were investing the same amount in other securities possessing an attractiveness, stability and certainty equal to that of the company's enterprise*"<sup>59</sup> (emphasis added) (unless the securities were currently trading at book value). The Board notes that Cargill<sup>60</sup> expressed a similar view.

<sup>56</sup> For example, Cargill Argument, page 23, and CG Argument, page 13

<sup>57</sup> Exhibit 016-11(a), Evidence of L.D. Booth, page 36

<sup>58</sup> ATCO Argument page 8, Companies Argument page 24

<sup>59</sup> NUL, 1929, at 192-193

<sup>60</sup> Cargill Argument, pages 6 and 7



# **ATCO Pipelines**

## **2003/2004 General Rate Application Phase I**

**December 2, 2003**

In the circumstances, the Board does not consider it appropriate to place 50% weighting on Calgary's Multi-factor Model calculation as recommended by Calgary. Rather, the Board has placed very little weight on this calculation.

### **DCF Method**

The Board shares Cargill's and CAPP's concerns regarding the optimistic nature of analyst growth forecasts with respect to the reliability of the DCF method, and notes that ATCO Pipelines has not denied that the optimism exists. The Board does not agree with ATCO Pipelines' argument that over-optimism would not be an issue as long as investors legitimately believed the over-optimism and priced utility securities accordingly. In the Board's view it would not be reasonable to award a return on the book value of equity that was the result of growth forecasts that were acknowledged to be over-optimistic.

Therefore, the Board has not placed any direct weight on the DCF results that are based on analyst growth forecasts.

The Board notes Calgary's alternative DCF analysis which used a nominal GDP growth forecast as a reasonableness test for the market return. In the Board's view this approach has merit. Therefore the Board has considered this result in reviewing the reasonableness of its ROE determination.

### **Equity Risk Premium Methods**

Historically, the Board has placed most weight on the CAPM equity risk premium method. In this proceeding, ATCO Pipelines focused on several forms of the equity risk premium method, including CAPM, and used the DCF test for confirmation. The CAPM form of the equity risk premium approach was given 50% weight in Calgary's recommended ROE. CAPP used the CAPM method with confirmation by the DCF method. Cargill supported the use of the CAPM method and rejected the use of the DCF method. FGA also rejected the use of the DCF method. In summary while a number of experts saw value in other methods, and felt that reliance on a single test was inappropriate, there was relatively broad support for substantial, but not exclusive, reliance on the CAPM equity risk premium method.

In addition the Board has specific concerns regarding the results of the Multi-factor Model and the DCF methods. These concerns are identified elsewhere in this section.

The Board notes that ATCO Pipelines also presented results from a DCF equity risk premium test. The Board has not placed significant weight on this result due to its reliance on analyst earnings growth estimates. As indicated above, the Board did give some consideration to Calgary's alternative DCF analysis, which relied on GDP growth estimates and not on growth estimates for individual firms, as a check on reasonableness.

The Board also notes that ATCO Pipelines presented evidence on the historic achieved utility risk premiums in the U.S. and Canada. The Board believes that this method may suffer from circularity and notes that ATCO Pipelines had confirmed that the mid-point of the achieved Canadian utility risk premium was above the overall market risk premium for the period used. In the Board's view it is not reasonable to expect utility returns to exceed market returns in the future. Consequently, the Board did not place weight on the historic utility achieved risk premium.

## **APPENDIX 35.2**

# **JIECS-BCOAP0-CEC 38.2**

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<b>Average of High/Low Prices: Average of 12 monthly highs and 12 monthly lows for each estimate</b>										
CANADIAN UTILITIES -CL A	\$ 12.04	\$ 13.98	\$ 17.93	\$ 22.37	\$ 21.71	\$ 19.99	\$ 25.68	\$ 27.54	\$ 26.81	\$ 28.68
EMERA INC	\$ 11.57	\$ 12.84	\$ 14.74	\$ 18.17	\$ 16.84	\$ 14.72	\$ 16.73	\$ 16.67	\$ 16.64	\$ 18.11
ENBRIDGE INC	\$ 7.58	\$ 8.88	\$ 12.00	\$ 16.15	\$ 16.34	\$ 16.45	\$ 20.37	\$ 22.50	\$ 23.74	\$ 26.07
FORTIS INC	\$ 26.11	\$ 29.75	\$ 35.13	\$ 42.23	\$ 35.28	\$ 32.22	\$ 39.14	\$ 48.22	\$ 55.52	\$ 61.96
TERASEN INC	\$ 7.19	\$ 8.76	\$ 12.01	\$ 15.18	\$ 13.87	\$ 13.81	\$ 16.57	\$ 19.12	\$ 21.12	\$ 24.36
TRANSCANADA CORP	\$ 18.10	\$ 20.88	\$ 26.78	\$ 28.10	\$ 19.52	\$ 12.58	\$ 18.84	\$ 22.24	\$ 24.45	\$ 27.63
<b>Book Value Per Share: Average Common Equity/Average Common Shares Outstanding</b>										
CANADIAN UTILITIES -CL A	\$ 8.51	\$ 9.03	\$ 9.59	\$ 10.18	\$ 10.86	\$ 11.63	\$ 12.52	\$ 13.71	\$ 14.91	\$ 16.05
EMERA INC	\$ 9.60	\$ 9.90	\$ 10.17	\$ 10.41	\$ 10.66	\$ 11.01	\$ 11.65	\$ 12.21	\$ 12.24	\$ 12.20
ENBRIDGE INC	\$ 3.80	\$ 4.85	\$ 5.70	\$ 6.30	\$ 6.44	\$ 6.81	\$ 7.49	\$ 8.63	\$ 9.72	\$ 10.61
FORTIS INC	\$ 23.74	\$ 24.51	\$ 25.21	\$ 25.84	\$ 26.19	\$ 27.14	\$ 28.93	\$ 32.12	\$ 34.68	\$ 39.13
TERASEN INC	\$ 6.80	\$ 7.25	\$ 7.58	\$ 7.62	\$ 7.94	\$ 9.37	\$ 10.76	\$ 12.25	\$ 13.47	\$ 13.98
TRANSCANADA CORP	\$ 13.26	\$ 14.25	\$ 15.23	\$ 12.87	\$ 10.96	\$ 10.69	\$ 11.18	\$ 11.69	\$ 12.25	\$ 12.94
<b>Market to Book (Calculated from above)</b>										
CANADIAN UTILITIES -CL A	1.42	1.55	1.87	2.20	2.00	1.72	2.05	2.01	1.80	1.79
EMERA INC	1.20	1.30	1.45	1.75	1.58	1.34	1.44	1.37	1.36	1.48
ENBRIDGE INC	1.99	1.83	2.10	2.56	2.54	2.42	2.72	2.61	2.44	2.46
FORTIS INC	1.10	1.21	1.39	1.63	1.35	1.19	1.35	1.50	1.60	1.58
TERASEN INC	1.06	1.21	1.58	1.99	1.75	1.47	1.54	1.56	1.57	1.74
TRANSCANADA CORP	1.36	1.46	1.76	2.18	1.78	1.18	1.69	1.90	2.00	2.13