

1. **Topic:** *Introduction,*
Reference: *Terasen Evidence, page 2*
Request: *Please provide all of the following:*

1.1 *Copies of all analyst reports in which Terasen Gas or its parent and its predecessor companies are mentioned from 2000-2005.*

Response:

Please refer to Appendix 1.1. Terasen does not have records of or access to reports which may have mentioned Terasen Gas or Terasen Inc., but were not focused on Terasen.

1.2 *Copies of all credit and bond rating reports in which Terasen Gas or its parent and its predecessor companies are mentioned from 2000-2005.*

Response:

Please refer to Appendix 1.2. Terasen does not have records of or access to reports which may have mentioned Terasen Gas or Terasen Inc., but were not focused on Terasen.

1.3 *Copies of all press releases in which Terasen Gas or its parent and its predecessor companies are mentioned from 2000-2005,*

Response:

Copies of press releases that have been issued by Terasen Inc. and Terasen Gas Inc. can be found in Appendix 1.3.

1.4 *Copies of all prospectuses in which the business risk of Terasen Gas or its parent or its predecessor companies are mentioned,*

Response:

Please refer to Appendix 1.4. The question is assumed to be limited to the 2000-2005 period, as with questions 1.1 to 1.3. The referenced prospectuses incorporate by reference various Management's Discussion and Analysis and Annual Information Forms which address business risk. Those documents are publicly available on www.sedar.com, but can be provided on request.

- 1.5 *Copies of all presentations made by the management of Terasen Gas or its parent and predecessor companies to security analysts, rating agencies, and professional organisations from 2000-2005 dealing with the company's business risk or financial affairs,*

Response:

Copies of presentations made to security analysts are attached. Presentations made to credit rating agencies contain extensive confidential materials which have not been made public, which relate in large part to businesses other than Terasen Gas, and would be prejudicial to Terasen to disclose publicly, and have therefore not been included. Although the rating agency presentations are not included, the information in those presentations that could be disclosed publicly is similar to the information in presentations made to security analysts. TGI and TCVI are not aware of any presentations to professional organizations that dealt with business risk or financial affairs.

- 1.6 *In each case please underline or highlight the reference to Terasen Gas or its predecessor companies.*

Response:

The requested references have been underlined or highlighted.

2. **Topic:** *Introduction,*
Reference: *Terasen Gas Evidence, page 2*
Request: *In addition to the information provided in answer to 1) above please provide information on all equity capital raised by Terasen Gas's parent and predecessor companies on behalf of Terasen Gas from 2000-2005. The information should include:*

2.1 *The price at which the common equity was issued and the average price for the previous and the following twenty trading days after the issue date;*

Response:

There was no common equity issued by Terasen Gas's parent and predecessor companies on behalf of Terasen Gas from 2000-2005.

2.2 *How the equity was sold, for example as a bought deal vs. traditional underwritten deal and the underwriting fees involved as a percentage of issue proceeds. If the equity was sold as a "bought deal" please indicate the spread between the sale price and the closing price on the day of the transaction;*

Response:

Please see response to question 2.1.

2.3 *Any newspaper comments on the market's reaction to the equity issue.*

Response:

Please see response to question 2.1.

2.4 *Anything else that would indicate whether the equity issue was well or poorly received by the market or difficult to sell.*

Response:

Please see response to question 2.1.

3. **Topic:** *Introduction,*
Reference: *Terasen Gas Evidence, page 9*
Request: *Please indicate the source of the reference to Canadian bond investors being “prohibited” from holding junk (non-investment grade debt. In particular:*

3.1 *Does the reference refer to legal restrictions if so please indicate their source;*

Response:

These restrictions refer to investment policy restrictions that apply to bond mutual funds or pension fund mandates. Most institutional investments are governed by investment policies that set out restrictions on the types of securities that the investment managers are permitted to hold. These policies are typically set by plan sponsors in the case of pension plans and endowment funds, and by investment managers in the case of mutual funds. Investment policies will typically address a range of issues and restrictions, such as restrictions on holdings in individual securities, holdings in foreign property, investments in real estate and asset allocation. Pension plans and mutual funds that invest in corporate bonds will typically include restrictions on holdings based on credit ratings.

Pension plan and mutual fund investment policies are not typically made publicly available. As an example of a typical pension plan investment policy, the Statement of Investment Policy for the Terasen Gas Inc. Retirement Plan for IBEW and COPE Members can be found in Appendix 3.1. This investment policy governs the securities that can be held by the investment managers for this pension plan, and, in this case, prohibits corporate bond investments with credit ratings of BBB- or lower.

3.2 *If the reference is to internal guidelines please indicate what research has been undertaken to justify the comment “most”*

Response:

The Company has not undertaken formal research with respect to the investment policies of Canadian fixed income investors. The comment was based on the experience of the Company’s Treasury staff, which includes two Chartered Financial Analysts with a combined 25 years of experience in corporate financing for natural gas pipelines and utilities, institutional debt investor relations and pension investment management.

In a recent conversation with a corporate debt research analyst with a major Canadian brokerage firm, the analyst noted that they would normally not bother to mention in a report the fact that a downgrade to non-investment grade would trigger forced selling as a result of investment policy restrictions, as that fact would be obvious to their institutional fixed income investor clients.

3.3 *Please indicate whether US investors face similar restrictions.*

Response:

Yes, US investors face similar restrictions. To illustrate, the following is an extract from a news report published May 5th, 2005 by thestreet.com regarding the decision by S&P to downgrade Ford and General Motors bonds to non-investment grade, under the headline "S&P Junks GM, Ford":

While the moves were widely anticipated, several market sources said they came sooner than expected. The market retreated from small gains held throughout the first half of the day, although it pared its losses late in the session. The Dow was recently down 25 points, or about 0.3%.

"These are very large credit issues in the market, and when they're cut, many insurance companies, pension funds, and endowments can no longer hold these bonds by virtue of the investment policy of a particular institution," said Hugh Johnson, chief investment officer with First Albany. "They're now under pressure to sell these bonds, and this could cause a decline in other bond prices and raise the borrowing costs for many companies.

"This may have been widely anticipated, but it's when it actually happens that investors are required to take action," Johnson added.

3.4 *Please indicate the bond ratings of comparable US utilities and whether the "normal" rating is A, or BBB and whether any have non-investment grade ratings.*

Response:

Schedules 17 and 19 of Ms. McShane's evidence indicate the bond ratings for comparable US utilities. The "normal" rating is A, and none have non-investment grade ratings. . Although some entities that are classified by Standard and Poor's as utilities have non-investment grade ratings, those entities are typically either:

- utility holding companies with significant higher-risk non-regulated activities,
- utility holding companies that were involved in energy trading post-Enron and suffered downgrades as a result, or
- utility subsidiaries of the holding companies noted above where S&P has capped the utility's ratings based on the ratings of the weak parent.

Accordingly, none of these non-investment grade "utilities", as defined by Standard and Poor's are considered to be comparable to Terasen Gas.

3.5 *Please indicate whether there is any need for Canadian utilities to have higher bond ratings than their US peers if as the company argues utilities operate in an integrated capital market.*



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Response:

The Company is not proposing that Canadian utilities have higher ratings than "A", which is the credit rating for comparable US utilities.

- 3.6 *Please provide support for the claim that it is the lowest bond rating that determines whether any institution can hold a company's debt rather than the highest.*

Response:

The comment was again based on the experience of the Company's Treasury staff. The disruption caused by Standard and Poor's downgrade of General Motors and Ford, noted above in the response to question 3.3, occurred notwithstanding the fact that Moody's and Fitch continued to assign investment-grade credit ratings on GM and Ford debt for some time following the S&P downgrade.

4. **Topic:** *TCPL Mainline equity increase*
Reference: *Terasen Gas Evidence, page 10.*
Request: *In the NEB decision that increased the TCPL Mainline's common equity ratio due to increased business risk:*

4.1 *Please indicate whether or not the NEB maintained its automatic adjustment mechanism for the Mainline's allowed ROE;*

Response:

It maintained the automatic adjustment mechanism.

4.2 *Please indicate whether the NEB changed the Mainline's common equity ratio due to competition from other pipelines such as Alliance and issues involving the Mainline's falling throughput;*

Response:

It changed the ratio due to risk factors related to increases in pipeline-on-pipeline competition and supply risk.

4.3 *Please provide any indication that the NEB changed the Mainline's common equity ratio due to generic factors that affect all the pipelines that it regulates;*

Response:

The NEB decision was specific to TCPL and did not address how risks may have changed for other pipelines.

4.4 *Please confirm that Westcoast negotiated a 31% common equity ratio for its main gas transmission line;*

Response:

It is confirmed

4.5 *Please indicate how the common equity ratios of the main oil and gas transmission lines have changed since the NEB's multi-pipeline decision in 1994.*

Response:

The allowed ratios have not changed except for TCPL and Westcoast. Many of the pipelines covered by RH-2-94 now operate under negotiated settlements and for this reason may not have sought a change to their capital structures.

5. **Topic:** Preferred shares,
Reference: Terasen Gas, page 10
Request:

5.1 Please indicate whether Terasen Gas was required by the BCUC to redeem its preferred shares;

Response:

As indicated in the response to BCUC Staff Information Request #1, question 31.0, Terasen Gas is prevented by confidentiality constraints from disclosing the negotiating position of participants in the ADR process that determined the 1998-2000 Revenue Requirements Settlement that resulted in the preferred shares being replaced by debt. BCUC Order G-85-97 required that BC Gas Utility (now TGI) comply with the Consolidated Settlement Document, which provided on page 2 that "BC Gas will redeem such preference shares and replace the same with long term debt as redemption occurs".

5.2 Please confirm that the only substantive change since 1994 has been that the accounting treatment of short term preferred shares that mimic debt has been changed to treating them as debt for financial statement purposes;

Response:

That is not correct. As indicated in the response to BCUC Staff Information Request #1, question 9.0, the perception of preferred shares by financial analysts has changed, as has the relative influence of rating agencies with different views on the equity characteristics of preferred shares. In addition, the changes to Canadian GAAP in 1996 and 2005 affected preferred shares that were redeemable in cash, and preferred shares that were redeemable in shares (which receive significantly higher equity credit from DBRS), respectively.

5.3 Please confirm that traditional preferred shares with indefinite maturity dates or where at maturity the par value can be met by further share issues continue to be treated as preferred shares and not debt for financial statement purposes;

Response:

Preferred shares where the par value can be redeemed by the holder by common share issuance in a variable amount are now generally classified as a liability. Preferred shares with indefinite maturity dates, no redemption option for the holder, and no obligation to pay preferred dividends continue to be classified as equity.



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5.4 *Please provide the financial analysis that was conducted at the time of the preferred share redemption that caused the company to redeem them.*

Response:

No financial analysis was conducted at the time of redemption in 1999 and 2000, as the Company was complying with the terms of Commission Order G-85-97.

5.5 *Please indicate what the company views to be a correct weighting of the preferred shares outstanding in 1994 in terms of debt and equity. Please provide for each of the 1994 outstanding issues the debt and equity percentage.*

Response:

Based on how financial analysts generally assessed preferred shares in 1994, the Company believes that all of the preferred shares outstanding in 1994 were appropriately characterized as equity.

6. **Topic:** Gas Competitiveness,
Reference: Terasen Gas Evidence page 11
Request:

6.1 Please provide a table indicating the number of existing residential customers that have switched from natural gas to alternative energy sources since 2000. The table should indicate the total revenue loss in absolute dollars as well as a percentage of revenues (minus gas cost)

Response:

Terasen Gas does not track the number of existing residential customers that have switched from natural gas to alternative energy sources.

Terasen Gas does however track the number of accounts removed or abandoned, which provides an indication of the loss of existing customers. An account is recorded as removed or abandoned due either to the demolition of the residential premise or the account has been terminated or locked off for non-payment of the account. Some of these customers eventually return as a new premise customer (i.e. new house) or as a reconnection with the remaining customers either leaving Terasen Gas' service territories or switching to alternative fuels.

Terasen Gas' response to BCUC IR#1, Question 16.2 outlines the recorded removals and abandonments from 2000 to 2004, with most of the recorded activity being residential accounts. The high levels recorded in 2003/04 are the result of Terasen Gas' efforts to improve its collections policy, leading to significantly higher levels of customer lock-offs.

2000	-1039
2001	-915
2002	-874
2003	-8077
2004	-4099

To address the question on the estimated revenue loss due to switching, the table below provides an illustrative example of the likely revenue impact. As noted earlier, although Terasen Gas does not specifically track the number of existing residential customers that have switched to alternative energy sources, the number of recorded removals and abandonments provides a proxy of the likely switching activities. To simplify the revenue impact analysis, Terasen Gas has assumed all removals and abandonments activity levels reported are from the Lower Mainland. In addition, the percentage of revenues column shown in the table is expressed as a percentage of total delivery margin for Terasen Gas Inc. only.

Year	Removals and Abandonments (# of Accounts)	Switched Delivery Margin per Customer	100% Switched (# of Accounts)	Total Delivery Margin Lost	Total Rate 1 Delivery Margin Recorded	Delivery Margin Lost as % of Total Delivery Margin
2000	(1,039)	\$ 364	(1,039)	\$ (378,140)	\$ 241,884,700	0.2%
2001	(915)	\$ 381	(915)	\$ (348,432)	\$ 254,516,100	0.1%
2002	(874)	\$ 403	(874)	\$ (351,983)	\$ 270,567,800	0.1%
2003	(8,077)	\$ 412	(8,077)	\$ (3,323,980)	\$ 263,442,200	1.3%
2004	(4,099)	\$ 424	(4,099)	\$ (1,739,019)	\$ 269,431,900	0.6%

Assumptions

1. For purpose of this example, it was assumed that removals and abandonments occurred on the Lower Mainland.
2. Delivery margin numbers for this calculation is based on a residential customer on the Lower Mainland.

6.2 *Please indicate the same data for the forecast test years for 2006, 7 and 8. Please indicate whether the company has done any research indicating what level of cost disadvantage, of natural gas relative to alternative fuels, is necessary for residential customers to incur the capital cost of switching to alternative energy sources.*

Response:

As indicated in answer to 6.1, Terasen Gas does not explicitly forecast the number of residential customers that will switch from natural gas to alternative energy sources. Terasen Gas does however forecast account removal and abandonments and expects it to moderate in the 1,000 number level, returning to the levels witnessed from 2000 – 2002, prior to the effects of the increased collection efforts in recent years. The anticipated delivery margin loss would be in the same order of magnitude as that outlined for year 2000 in the table above.

For switching to electric heating, Terasen Gas estimates that the cost of switching to electric baseboard heating for a residential customer on the Lower Mainland to be about \$2,800 to \$3,000, covering the installation labour and equipment costs. Using the natural gas rates as of October 1, 2005 and assuming mid efficiency use (i.e. 80%), the annual cost of natural gas is marginally higher (i.e. \$90 per year more) than using electricity for space heating, without consideration for any differences in annual maintenance costs. The payback period for switching would be about 30 years making it an uneconomical decision to switch to electric. To obtain a more attractive payback period of 8 years, natural gas rates would have to be about 35% higher than today's rates to make it an economical option to switch to electric.

In the situation where a Lower Mainland residential natural gas customer is faced with replacing its existing gas furnace or switching to electric, the capital costs for both options are approximately the same. To acquire a high efficiency (i.e. 95%) gas furnace, Terasen Gas estimates the replacement cost to be \$3,000 to \$3,500, assuming the customer takes advantage of a \$500 rebate from Terasen Gas to upgrade to a high efficiency gas furnace. For switching to electric, as mentioned earlier, the estimated cost to switch to electricity is about \$2,800 to \$3,000. Using the natural gas rates as of October 1, 2005 and assuming high efficiency use (i.e. 95%), the annual cost of natural



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gas is marginally lower (i.e. \$20 per year less) than using electricity for space heating, without consideration for any differences in annual maintenance costs. In this case, the payback period for staying with natural gas and upgrading to a high efficiency furnace would be about 25 years, assuming a higher initial capital outlay for the high efficiency gas furnace as compared to the costs to switch to electric (i.e. \$500).

A third scenario would be portable plug-in electric heaters being used as a substitute for natural gas space heating, the switching costs to electric are estimated at about \$400, assuming the purchase of 5 – 6 plug-in heaters to heat a house at an estimated purchase cost of \$50 - \$100 for each heater. Using the natural gas rates as of October 1, 2005 and assuming mid efficiency use (i.e. 80%), the annual cost of natural gas is marginally higher (i.e. \$90 per year more) than using electricity for space heating, without consideration for any differences in annual maintenance costs. In this scenario, the payback period for switching to electric would be about –3-6 years depending on the style of plug in heater purchased. However, issues of safety and the effectiveness of using portable plug-in heaters as a long term space heating solution draw into question the feasibility of this option for residential customers.

Although portable electric heaters are likely not a long term viable space heating solution, they do contribute to reductions in use per account. Moreover, if residential customers start widely adopting them with the effect of significantly lowering demand for natural gas, delivery rates would have to rise, resulting in further rate pressures, and potentially leading to even more reduced consumption of natural gas in the future.

In the BC Interior, many houses have wood burning stoves and fireplaces and depending on their access to and cost assumptions for wood fuel, this may provide an economic substitute or supplement to natural gas heating. The economics would depend on the individuals circumstances and therefore are indeterminable here.

For other alternative energy sources such as geothermal, Terasen Gas has not conducted extensive research to assess the relative economics of geothermal relative to natural gas. However, there is increased interest of late by builders / developers in adopting “green” – environmentally friendly building standards, sparked in part by consumers’ growing concern and reaction to rising and volatile oil and natural gas prices. The choice of alternative renewable energies today is not only economically and environmentally more attractive than before but renewable energy also provides a solution for consumers seeking relief from rising and volatile fossil fuels prices.

7. **Topic:** *Business Risk*
Reference: *Terasen Gas Business Risk Evidence, page 2*
Request:

7.1 *In answer to BCUC #1, 1.2 the company provided earned versus allowed ROEs since 1992, please provide a brief explanation of why the company failed to earn its allowed ROE in 1998 and whether that loss would now be covered by a deferral account.*

Response:

The primary reason Terasen Gas failed to earn its allowed ROE in 1998 was due to employee severances paid as a result of a major corporate restructuring effort. Under the terms of the 2004-2007 PBR settlement, there is no utility deferral account treatment for employee severances.

7.2 *In terms of the company's ability to recover its investment in rate base, please*

- a) *indicate the company's average depreciation rate and whether the company feels that this risk is best accounted for in its depreciation rate, rather than in its capital structure or allowed ROE;*

Response:

The company's average depreciation rate is 2.4%. Terasen Gas believes that higher depreciation rates do help in mitigating risk associated with recovering its investment in rate base. However, depreciation rates rely on estimates of economic life, which may ultimately prove to be wrong. Since this risk cannot be fully mitigated, it therefore should be compensated through cost of capital.

- b) *indicate when the company last requested a change in its allowed depreciation rate;*

Response:

Terasen Gas requested changes to its allowed depreciation rates as recommended by Gannett Flemings (Depreciation Study Consultants) in its depreciation study in 2000 but because of large commodity-related rate increases, the proposal was not implemented since it would have resulted in an increase in revenue requirement of some \$27 million.

In the Revenue Requirement Application filed in 2001, Terasen Gas sought to partially implement the findings of the depreciation study, effective January 1, 2002, increasing revenue requirement by \$5.3 million, but the application was later withdrawn.

In the 2004-2007 PBR application, Terasen Gas included the partial implementation of the depreciation study recommendations and by BCUC Order G-51-03, the Commission approved the partial implementation recommendations.

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- c) *please confirm that the NEB has adjusted the depreciation rate to account for long run recovery risk rather than adjusting the allowed ROE.*

Response:

The NEB's comments in RH-2-2004 Phase II with respect to depreciation and long-run recovery risk are attached as "JIECS-BCOAPO-CEC 7.2c.pdf".

In the attached extract from the Reasons for Decision in R-2-2004 (Appendix 7.2c), the NEB discusses the adjustment of depreciation rates. The adjustment of depreciation rates does not guarantee long term recovery of, and on, capital as the estimates of economic life may ultimately prove to be wrong, and since competitive factors may prevent the company's tolls from being sufficiently high to recover all costs including the depreciation.

8. Topic: *Deferral accounts*

Reference: *Terasen Gas Business Risk Evidence, page 17*

Request: *The company argues with respect to deferral accounts that "TGI is by no means unique when compared to other distribution companies,"*

8.1 *please indicate all deferral accounts available to the company and what major revenue and expense items that are not covered by deferral accounts both in absolute dollars and as a percentage of revenues (net of gas costs);*

Response:

Please refer to the table Appendix 26.5 Table in response to BCUC IR No.1:26.5, for a list of TGI's deferral accounts.

Please refer to the response to BCUC IR No.2:18.1 for details on TGI's delivery margin.

MARGIN ANALYSIS - TGI										
	TEST 2005	ACTUAL 2004	ACTUAL 2003	ACTUAL 2002	ACTUAL 2001	ACTUAL 2000	ACTUAL 1999	ACTUAL 1998	ACTUAL 1997	ACTUAL 1996
Not Covered by Deferral Accounts										
Revenue:										
Non-RSAM Revenue	64,155	64,221	65,940	64,810	64,431	51,380	46,200	41,783	41,604	46,360
New customer additions (mid-year)	2,145	2,438	869	1,546	954	1,242	1,877	1,742	2,706	2,677
Other Revenue, excluding SCP Revenue	24,969	16,134	15,911	19,437	18,122	12,151	14,122	14,700	18,086	17,531
Revenue Not Covered	91,269	82,793	82,720	85,793	83,507	64,773	62,199	58,226	62,396	66,567
Revenue Not Covered as a % of Gross Margin	18.1%	17.6%	18.0%	18.1%	18.4%	15.7%	15.5%	15.4%	16.6%	17.6%
Expenses:										
Total O&M without deferral protection	152,103	141,981	140,963	142,110	132,408	123,296	113,068	124,821	117,965	109,550
Depreciation	80,794	77,650	71,681	70,153	68,793	58,814	56,661	51,963	48,146	44,079
Expenses Not Covered	232,897	219,631	212,644	212,263	201,201	182,110	169,729	176,784	166,111	153,629
Expenses Not Covered as a % of Gross Margin	46.2%	46.7%	46.2%	44.8%	44.3%	44.0%	42.3%	46.8%	44.3%	40.6%

TGI's average revenue not covered by deferral accounts from 1996 to 2005 is approximately \$74 million. This translates to approximately 17.1% of Gross Margin.

TGI's average expenses not covered by deferral accounts from 1996 to 2005 is approximately \$193 million. This translates to approximately 44.6 % of Gross Margin.

8.2 *Please indicate whether the company has ever asked for deferral accounts for the items indicated in 1) above;*

Response:

Terasen Gas has not asked for deferral accounts for these items.

8.3 *Please provide a comparison of the deferral accounts available to the Terasen companies and other comparables such as Union Gas, Enbridge Gas Distribution, ATCO Gas, and GMI.*



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Response:

Please refer to Response to British Columbia Utilities Commission Information Request No. 1, Appendix 26.5, which identifies deferral accounts utilized by Terasen Gas and Terasen Gas (Vancouver Island) Inc. and shows whether ATCO, Enbridge, Gas Metro, and Union Gas hold similar deferral accounts. BCUC IR No. 1, Appendix 26.5 also includes information submitted by Union Gas in its 2004 Revenue Requirement Application, Section 10 Deferral Accounts.

8.4 Please indicate whether any of the reference companies listed in 3) have a comprehensive RSAM equivalent to that of Terasen.

Response:

Gaz Metro has a Revenue Normalization Mechanism, which is a function of normal temperatures for the distribution of natural gas. The revenue normalization account for weather defers revenue shortfalls or surpluses related to the temperature normalized conditions in Gaz Metro's service territory. Both Union Gas and Enbridge Consumers have Lost Revenue Adjustment Mechanisms, which record margin variances that result from energy savings due to DSM programs. As we understand it these are limited to load lost related to DSM initiatives but in that sense function like an RSAM for such revenues.

8.5 Please indicate whether US gas distribution utilities have deferral accounts equivalent to those available to Canadian utilities.

Response:

Virtually all U.S. gas utilities have Purchase Gas Variance Accounts ("PGVA's"), and many have weather normalization clauses.

9. **Topic:** *Business Risk*
Reference: *Terasen Gas Business Risk Evidence, page 18,*
Request:

9.1 *If the company's business risk has "increased significantly since the Commission examined TGI in its public hearings of 1994 and 1999," please indicate why this has not shown up in an increased frequency of TGI failing to earn its allowed ROE.*

Response:

A number of factors have influenced TGI's performance over the last 11 years not the least of which is the Company's effective management of its operations and business risks on behalf of its customers and for their (customers and the Company) mutual benefit. TGI has operated under successively more comprehensive incentive rate settlements that allowed it an opportunity to achieve and retain earnings that exceeded the allowed ROE levels during much of the period, some years more than others and with under performances in 1992, 1994 and 1998.

That the Company has been able to earn its allowed return through superior operating performance does not obviate the requirement for the Commission to address the adequacy of the return that is allowed, which the Company maintains is too low. In addition, part of the significant increase in business risk is in respect of the competitive position arising from the price of natural gas compared to the price of electricity. That increase in business risk relates to the long-term risk of recovering a return of, and on, capital invested, and not to the variance from allowed return in a year in the past.

9.2 *Please indicate the forecast long Canada rate at the time of the 1999 ROE adjustment mechanism review and the rate used in rate setting for the years 1999-2005. In the company's view has there been a material change in the forecast long Canada rate since 1999?*

Response:

The forecast long Canada rate relied upon in Ms. McShane's testimony in 1999 was 5.5%. The rates used to set the allowed ROEs under the automatic adjustment mechanism in each year 1999 to 2005 were:

1999	5.47%
2000	6.04%
2001	5.73%
2002	5.63%
2003	5.92%
2004	5.65%
2005	5.53%

The September 2005 consensus forecast for 10-year Canada bonds is 4.1% (3-months forward) and 4.6% (12-months forward), for an average of 4.35%. The August spread with 30-year Canadas was 30 basis points, for a 30-year forecast yield of 4.65%. TGI and TGV view that as constituting a material change since 1999.



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10. **Topic:** *Risk comparisons*
Reference: *Ms. McShane's Evidence, page 3,*
Request:

10.1 *In Ms. McShane's judgment is Terasen Gas more or less risky than Union Gas and Enbridge Gas Distribution (EGDI) given the current regulated ROE and capital structure.*

Response:

More risky; at lines 400 to 401 of Tab 2, she concluded that TGI's business risks are comparable to those of the major Alberta and Ontario distributors. However TGI has higher financial risk.

10.2 *Can Ms. McShane indicate the last time that she testified on behalf of Union and EGDI and how she ranked them at that time relative to TGI.*

Response:

In 2003, Ms. McShane concluded that EGDI was of lower investment risk than TGI, and that Union was of comparable investment risk to TGI. The major change that has occurred since 2003 has been the marked increase in the competitive pressures faced by TGI relative to those of the Ontario distributors.

11. **Topic:** *Long Canada yields*
Reference: *Ms. McShane's Evidence, page 5,*
Request:

11.1 *Please provide a graph of the long Canada bond yield from the time that Ms. McShane filed testimony in 1999 on the review of the BCUC adjustment mechanism till the time of her current testimony.*

Response:

Please refer to Appendix 11.1

11.2 *Is it Ms. McShane's professional judgment that there has been a material change in long Canada bond yields from the time that the BCUC last reviewed the automatic adjustment mechanism?*

Response:

As noted in response to JIESC-BCOAPO-CEC No 1 9.2, the forecast long-Canada yield at the time of the 1999 review was 5.5%; the September 2005 consensus forecast places it at 4.65%. In Ms. McShane's view, that represents a material change.

12. **Topic:** *Globalization of capital markets*
Reference: *Ms. McShane's Evidence, page 5*
Request:

12.1 *Please indicate whether there have been any regulatory changes that Ms. McShane is aware of that have changed the relative attractiveness of Canadian investments as far as foreign investors are concerned.*

Response:

Ms. McShane is not aware of any regulatory changes that have substantively changed the relative attractiveness of Canadian investments as far as foreign investors are concerned.

12.2 *Would Ms. McShane agree that greater diversification generally reduces risk and the required risk premium, so that historic estimates of US risk premia overstate current requirements due to the greater diversification that is now available.*

Response:

Ms. McShane presumes, given the IR Topic and Reference, that the question relates to global diversification. Ms. McShane agrees that global diversification reduces risk. The essential justification for global diversification is a reduction in risk for the same level of expected return or an increase in return for the same level of risk. As a result, there is no reason to conclude that the expected returns have declined as a result of global diversification. Moreover, the benefits of global diversification impact both equities and bonds. Consequently, globalization does not indicate a lower risk premium, or that historic U.S. risk premia overstate current requirements.

12.3 *Can Ms. McShane please provide any support for the proposition that greater diversification opportunities increase required risk premiums.*

Response:

Please see response to 12.2. Further, with greater mobility of capital, capital will flow across borders to those countries or sectors within countries that offer higher risk-adjusted returns.

13. **Topic:** *Comparable Earnings*
Reference: *Ms. McShane's Evidence, page 5,*
Request: *With reference to the use of comparable earnings estimates can Ms. McShane indicate the last time a Canadian regulator explicitly incorporated a comparable earnings estimate into the allowed ROE. Please provide the full documentary support.*

Response:

In E.B.R.O. 485 (12/93) for Consumers Gas, the Ontario Energy Board stated,

"With respect to the results of the equity return tests, the Board notes that the experts reach different conclusions as to the appropriate (in their judgements) return on equity based on their use and various applications of the different tests. Despite the lack of precision as to the ultimate resolution of a fair rate of return on equity based on the results of the various tests, in general the Board finds the analyses helpful. The Board has taken account of the different results of all the tests and the other evidence presented in the proceeding in its deliberations."

In E.B.R.O. 470 (4/91) for Union Gas, the OEB stated,

"Taking all of the evidence into account, including the likelihood that the economic downturn will not be sustained for all of 1992 test year and that a modest recovery can be expected late in the year and giving most weight to the comparable earnings test incorporating a market-to-book ratio adjustment and the risk premium test, the Board concludes that a "band of reasonableness" for a fair rate of return on Union's common equity lies between 13.25 and 13.75%."

In E93069 (10/93) for Alberta Power, the Public Utilities Board stated,

"The Board does not concur with the opinion of the witness for MI that the comparable earnings test has outlived its usefulness. The Board considers that there is still some merit in the test to the extent that regulation is considered a surrogate for competition and the comparable earnings test attempts to measure the achieved accounting rates of return on common equity of enterprises of similar risk. The Board does recognize that there may well be distortion in the market to book ratios caused by the effect of inflation on retained earnings of companies, notwithstanding their similarity in risk. Similarly, the comparable earnings test may be sensitive to the selection of the business cycle under study."

In RH-2-92 (2/93) for TransCanada PipeLines, the National Energy Board stated,

"Both the comparable earnings and equity risk premium techniques provided the Board with useful information in its determination of the appropriate rate of return to be allowed on TransCanada's deemed common equity component. However, the Board remains of the view that the results of the risk premium method should be given more weight than those of the comparable earnings



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method. The Board shares the concerns expressed by all rate of return witnesses as to the usefulness of the DCF test results in this case and has therefore given these little weight.”

In E95070 (6/95) for the City of Edmonton, the Alberta Energy and Utilities Board stated,

“In arriving at a rate of return on common equity, the Board considers that, for the purposes of this Decision, all three tests of measuring common equity return are relevant. The Board does not agree with the opinion of the witness for the ERWCG, Mr. Kahal, that the comparable earnings test is of little help or relevance to these hearings because it does not attempt to measure the market cost of equity for the companies in the comparison sample. Rather, the Board considers that there is still some merit in the comparable earnings test to the extent that regulation is considered a surrogate for competition and the comparable earnings test attempts to measure the achieved accounting rates of return on common equity of enterprises of similar risk. The Board does, however, recognize that there may well be distortion in the market to book ratios caused by the effects of inflation on retained earnings of companies, notwithstanding their similarity in risk. Similarly, the comparable earnings test may be sensitive to the selection of the business cycle under study.”



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14. **Topic:** *Comparison with US*
Reference: *Ms. McShane's Evidence, page 5,*
Request: *With reference to the remarks that US utilities have higher allowed ROEs not explained by risk differences, can Ms McShane:*

14.1 *Confirm that many US utilities are regulated on a complaint basis and do not have their ROEs adjusted on a frequent basis.*

Response:

Many U.S. utilities are not subject to a legislative or regulatory requirement to file rate applications on a scheduled basis.

14.2 *Indicate for the US utilities in her Tab 2 schedule 4 how many times each of the utilities has been subject to a hearing to determine their ROE since 1994.*

Response:

Please find below a table enumerating the number of major rate hearings for each company where ROE was an issue, as compiled by Regulatory Research Associates.



<u>Company</u>	<u># of Cases</u>
Alabama Gas	0 ^{/1}
Atlanta Gas	3
Boston Edison	0
CILCO	1
CIPS	2
Central Hudson	
Gas	2
Electric	1
Commonwealth Edison	0
Consolidated Edison	3
Equitable	2
Illinois Power	1
Indiana Gas	1
Keyspan	0
Laclede	5
New England Power	
Narrangansett	2
Massachusetts Electric	1
Niagara Mohawk (Gas)	1
Niagara Mohawk (Electric)	1
New Jersey Natural Gas	0
Nicor	0
North Shore Gas	0
NStar	0
NUI Utilities	
Elizabethtown Gas	1
NW Natural	2
Orange and Rockland	2
PECO	0
Peoples	0
Piedmont	2
PPL	1
Public Service of NC	2
Questar	4
Southern California Gas	3 ^{/2}
San Diego Gas & Electric	
Gas	2
Electric	2
Washington Gas	3
Wisconsin Gas	0

^{1/} Has rate stabilization plan in effect since 1990. Allowed range of ROEs of 13.15-13.65%; rates are adjusted to bring ROE into that range. Plan in place through 2008.

^{2/} Three times prior to 1997; adopted automatic adjustment mechanism on cost of capital in 1997.



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14.3 *Provide a table of the earned ROE vs the allowed ROE for each of the utilities in her Tab 2 Schedule 3 similar to that provided by the company in answer to BCUC IR#1, 1.3.*

Response:

Please see response to BCUC IR No 1 28. For those companies not covered in response to BCUC IR No 1 28, the requested data have not been collected.

15. **Topic:** *Market risk premium*
Reference: *Ms. McShane's Evidence, page 6,*
Request: *Ms. McShane is recommending an ROE of 10.5% for the low risk utility for a utility risk premium of 5.25%. With her beta or relative risk coefficient of 0.65 this implies a market risk premium of 8.0%. Please provide any recent estimates by financial analysts of the market risk premium in the US or Canada that supports a market risk premium of 8.0% over long term Canada bonds that Ms. Mc Shane is aware of.*

Response:

Ms. McShane is unable to respond to the question as posed since she does not agree with the premise of the question. First, the CAPM or risk-adjusted market risk premium test represents one way of estimating the required return on equity, using a simple model that depends on a single risk factor, beta. Other risk premium methodologies and the DCF test would not necessarily produce results that are consistent with the CAPM results. Consequently, the CAPM results should not be viewed as the yardstick. Second, the risk premium and DCF tests include a financing flexibility adjustment that would need to be excluded for purposes of estimating the corresponding market return. Third, the 10.5% recommended return gives weight to comparable earnings, which is not a market-derived test.

16. **Topic:** *Utility risk premiums*
Reference: *Ms. McShane's Evidence, page 7,*
Request: *Please provide the relevant portions of any decisions by Canadian regulators that have explicitly accepted looking at the realized return performance of Canadian utilities as a proxy for their risk and the required level of ROE.*

Response:

Ms. McShane is not aware of any decisions that have explicitly given weight to the historic risk premiums. However, it is appropriate for regulators to do so. Achieved market returns generally may differ from what investors had expected. More stable sectors of the market are more likely to have actual returns that are closer to what investors had expected. As utilities are relatively low risk equity investments, the expected and actual returns are more likely to converge over the long-run than those of more volatile sectors, and thus provide a better estimate of the expected utility risk premium than a CAPM or CAPM-like risk premium test.

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17. **Topic:** *Evidence weights*
Reference: *Ms. McShane's Evidence, page 9,*
Request: *Please indicate the exact weights applied to the market based opportunity cost estimates (Risk premium and DCF) versus the comparable earnings estimates.*

Response:

75% weight was given to the market-based tests and 25% weight to the comparable earnings test.

18. **Topic:** *Competitiveness*
Reference: *Ms. McShane's Evidence, page 14,*
Request:

18.1 *Please confirm that the NEB has increased the allowed common equity ratio for the TCPL Mainline due to increased pipeline competition that is, there are alternative ways of delivering WCSB gas to the major marketing hubs in the US (Alliance). Please indicate whether any alternative delivery mechanisms exist for natural gas in competition with TGI..*

Response:

It is confirmed. The NEB also increased the equity ratio due to increased supply risk. There are no alternative delivery mechanisms for natural gas in the service areas of TGI or TGVI (although there is alternate delivery for propane in Revelstoke where TGI distributes propane). However, both TGI and TGVI face competition from alternative energy sources, primarily electricity, but also other energy sources such as wood. There are different competitive circumstances facing different utilities that regulators need to take into account when determining an appropriate capital structure and return on equity.

18.2 *Please indicate whether the NEB has ever increased the common equity ratio for the TCPL Mainline due to any loss of competitiveness of natural gas at the consumer level, that is, for example, vs. electricity.*

Response:

No. TCPL does not generally serve end markets; for TCPL, the key competitive risks are with other pipelines. In contrast, for TGI and TGVI the competitive risks are in the end markets.

The question appears not to recognize that the competitive pressures in British Columbia between electricity and natural gas are very different than in most areas of North America. As discussed in the Application, there is relatively little spread between the delivered price of electricity and the delivered price of natural gas in B.C. due to the dominance of low cost hydro-electric generation in B.C. .Most North American utilities do not face a similar degree of competitive pressure between natural gas and electricity.

18.3 *Please provide any North American medium term forecasts of aggregate natural gas supply and demand available to Ms. McShane. Please indicate whether in her judgment these forecasts indicate that natural gas is becoming less competitive as a fuel source. Is she aware of any forecast shortage in conventional natural gas supply and as a result plans for new LNG facilities to meet any forecast excess demand for natural gas?*

Response:

Ms. McShane has not compiled forecasts of gas supply and demand. She is aware that recent forecasts indicate the potential for North America demand to outstrip supply from traditional sources, and that the difference is expected to be made up of northern gas supply (Alaska and Canada), and non-traditional sources (coal-bed methane, LNG).

Nevertheless, the question appears to focus on circumstances generally throughout North America. The demand/supply conditions that may exist in North America as a whole do not address competitive pressures in B.C., where natural gas has become less competitive with electricity due to the dominance of low-cost hydro generation and rising natural gas commodity prices.

19. **Topic:** *TGI demand load*
Reference: *Ms. McShane's Evidence, page 15,*
Request: *Please provide a table showing the revenue breakdown (net of gas costs) of TGI versus Union Gas, EGD I and GMI based on industrial, commercial and residential revenues for each year since 1990.*

Response:

Ms. McShane does not have these data. Please see response to BCUC IR No 1 38.3 for most recent percentage margins from industrial sales and transportation services, as available.

20. **Topic:** *Risk comparison*
Reference: *Ms. McShane's Evidence, page 16,*
Request: *In point 4 Ms. McShane mentions that other gas LDCs have a small amount of preferred shares, whereas in point 5 she makes no mention of the fact that neither Nova nor the TCPL Mainline now has a preferred share component.*

20.1 *Can Ms. McShane confirm that when the TCPL Mainline had a 30% deemed common equity ratio that it also had an 8% preferred share component that has now been redeemed.*

Response:

The preferred shares were redeemed and replaced, as an alternative to preferred share, with junior subordinated debentures, which are given some equity credit although that weight has declined since the late 1990s. From 1998 to 2004, the junior subordinated debt made up, on average, approximately 10% of the regulated capital structure.

20.2 *Can Ms McShane please categorize the preferred shares that BC Gas had outstanding in 1994 into conventional preferred shares versus preferred shares that were designed to mimic debt. In her judgment what was the equity component of BC Gas's preferred shares in 1994.*

Response:

Approximately 40% of the preferred share component was conventional and 60% was retractable. While retractable preferred shares are currently included in liabilities, for accounting purposes, in 1994 they were accounted for as equity. In the testimony filed on behalf of BC Gas Utility in December 1993 by Dr. Sherwin and Ms. McShane, no distinction was made between the types of preferred shares.

21. **Topic:** ATCO Gas
Reference: Ms. McShane's Evidence, pages 17
Request:

21.1 Can Ms McShane confirm that size affects a utility's bond rating and that smaller utilities like FortisBC, Island Tel, Maritime T&T and Centra Manitoba have had lower ratings in the past simply because they are (were) smaller utilities.

Response:

All other things equal, smaller utilities will tend to have lower ratings than larger utilities.

21.2 Can Ms. McShane please provide the latest size of the rate base and common equity for ATCO Gas, Union Gas, TGI, EGDI and GMI.

Response:

	Rate Base (\$ millions)	Equity
ATCO Gas	\$1,314 ^{1/}	\$ 400
Union Gas	\$3,045	\$1,115
TGI	\$2,306	\$ 761
EGDI	\$3,422	\$1,652
GMI	\$1,666	\$ 913 ^{2/}

^{1/} Includes contributions.

^{2/} Partners' equity.

22. **Topic:** *Greenfield utility*
Reference: *Ms. McShane's Evidence, pages 18,*
Request: *Can Ms. McShane please indicate the ownership history of TGVI and when in her judgment a Greenfield Gas LDC ceases to be a Greenfield gas LDC.*

Response:

Please refer to Appendix 22, which is a copy of Exhibit 34 from the Terasen Gas (Vancouver Island) Inc. rate design hearing of 2003. It explains the corporate history of the companies involved in the transmission and distribution of gas on Vancouver Island and the Sunshine Coast. B.C. Corporation No. 0236352 is the company now named Terasen Gas (Vancouver Island) Inc.

The transmission of gas was originally carried on by a corporation that was owned separately from the entities that distributed gas: Pacific Coast Energy Corporation ("PCEC") was the transmission company. PCEC was originally owned 50% by Westcoast Energy Inc. ("WEI") and 50% by Alberta Energy Corporation ("AEC"). WEI acquired the 50% interest held by AEC in 1995. Centra Gas British Columbia Inc. ("CGBC") was the primary distributor of gas. CGBC was owned 100% by WEI, which had acquired CGBC as part of its acquisition of Inter-City Gas Corporation in 1990. In 1996, as part of the restructuring under the Vancouver Island Natural Gas Pipeline Agreement, PCEC purchased the assets of CGBC and the other Centra companies involved in the distribution of gas on Vancouver Island. PCEC was then re-named as Centra Gas British Columbia Inc.

In 2002, Terasen Inc. acquired the Centra Gas British Columbia Inc. and subsequently renamed it TGVI.

Please see responses to BCUC IR No 1 40.2 and BCUC IR No 1 41.2 for a response to the Greenfield portion of the question.

23. **Topic:** *Greenfield utility*
Reference: *Ms. McShane's Evidence, pages 20,*
Request: *Can Ms. McShane please provide summary financial statements for TGVI for each year since 2000.*

Response:

A summary of the TGVI financial statements since 2000 are below. These statements are being provided by TGVI. On the financial statements, the term revenue surplus (deficiency) represents earnings from business operations that exceed or are below the return allowed by the Commission. Under the terms of the Vancouver Island Natural Gas Pipeline Agreement the over/(under) earnings in each year are to be used to reduce/increase the Revenue Deficiency Deferral Account ("RDDA"). As per the financial statements, TGVI under earned its allowed return prior to 2003 and the accumulated deficit increased in the RDDA in each year. In 2003 and 2004 TGVI's rates were set at a level which allowed it to begin to recover a portion of the accumulated deficit in the RDDA



Terasen Gas (Vancouver Island) Inc.

**Statements of Earnings (000)
Years ended December 31**

Revenues	<u>2004</u>	<u>2003</u>	<u>2002</u>	<u>2001</u>	<u>2000</u>
Natural gas distribution	\$ 122,186	\$ 127,692	\$ 102,126	\$ 97,156	\$ 96,228
Transportation revenue	29,113	28,256	21,684	16,753	13,941
Royalty Income	36,126	34,059	18,189	34,664	22,696
	<u>187,425</u>	<u>190,007</u>	<u>141,999</u>	<u>148,573</u>	<u>132,865</u>
Expenses					
Cost of natural gas	71,438	78,656	52,794	69,793	47,333
Operation and Maintenance	26,801	27,699	26,224	24,159	24,750
Depreciation and amortization	16,567	15,365	14,388	14,447	14,733
Property and other taxes	7,233	6,841	7,627	7,747	7,340
Wheeling	4,297	4,168	4,068	3,839	3,839
	<u>126,336</u>	<u>132,729</u>	<u>105,101</u>	<u>119,985</u>	<u>97,995</u>
Operating Income	61,089	57,278	36,898	28,588	34,870
Financing costs	<u>19,157</u>	<u>23,032</u>	<u>23,590</u>	<u>25,196</u>	<u>26,057</u>
Earnings before income taxes and revenue surplus	41,932	34,246	13,308	3,392	8,813
Current income taxes	12,471	7,829	1,158	1,116	1,143
Future income taxes	-	-	-	-3,015	-
	<u>12,471</u>	<u>7,829</u>	<u>1,158</u>	<u>-1,899</u>	<u>1,143</u>
Earnings before revenue surplus	29,461	26,417	12,150	5,291	7,670
Revenue (surplus) deficiency	-14,227	-12,597	2,806	11,846	5,775
Net Earnings	<u>\$ 15,234</u>	<u>\$ 13,820</u>	<u>\$ 14,956</u>	<u>\$ 17,137</u>	<u>\$ 13,445</u>

Terasen Gas (Vancouver Island) Inc.

**Statements of Financial Position (000)
Years ended December 31**

Assets	<u>2004</u>	<u>2003</u>	<u>2002</u>	<u>2001</u>	<u>2000</u>
Current Assets					
Cash and cash equivalents	\$ 41	\$ 43	\$ 31	\$ 58	\$ 30
Accounts receivable	25,434	24,714	19,702	17,868	26,686
Due from related parties	-	-	-	241	10,060
Inventories of gas in storage and supplies	15,973	12,566	9,961	12,709	12,893
Prepaid Expenses	621	1,033	407	621	605
Current portion of finance contracts	64	108	275	390	466
Deferred charges	1,046	148	215	145	1,549
	<u>43,179</u>	<u>38,612</u>	<u>30,591</u>	<u>32,032</u>	<u>52,289</u>
Finance contracts	34	72	177	450	727
Property, plant and equipment	430,336	426,114	421,739	417,866	414,706
Future income taxes	-	-	3,015	3,015	-
Accumulated revenue deficiency	61,097	75,324	87,911	85,072	83,376
Deferred charges	14,926	15,246	14,569	10,165	
	<u>\$ 549,572</u>	<u>\$ 555,368</u>	<u>\$ 558,002</u>	<u>\$ 548,600</u>	<u>\$ 551,098</u>
Liabilities and shareholders equity					
Current liabilities					
Accounts payable and accrued liabilities	\$ 16,260	\$ 18,125	\$ 16,602	\$ 22,793	\$ 29,139
Due to related parties	67,076	50,350	61,480	50,759	51,915
Income and other taxes	4,978	7,442	1,204	1,440	1,413
Deferred credits		3,707	822	1,936	-
Current portion of long term debt	19,649	18,046	5,476	5,505	5,534
	<u>107,963</u>	<u>97,670</u>	<u>85,584</u>	<u>82,433</u>	<u>88,001</u>
Customer deposits	2,037	2,132	1,235	979	769
Deferred credits	1,125	916	-	-	-
Long term debt	269,168	288,733	303,736	296,952	295,003
Total liabilities	<u>380,293</u>	<u>389,451</u>	<u>390,555</u>	<u>380,364</u>	<u>383,773</u>
Shareholder's equity					
Share capital	77,477	77,477	77,477	77,477	77,477
Contributed surplus	38,196	38,196	38,196	38,196	38,196
Retained earnings	53,606	50,244	51,774	52,563	51,652
	<u>169,279</u>	<u>165,917</u>	<u>167,447</u>	<u>168,236</u>	<u>167,325</u>
	<u>\$ 549,572</u>	<u>\$ 555,368</u>	<u>\$ 558,002</u>	<u>\$ 548,600</u>	<u>\$ 551,098</u>

24. **Topic:** *Non risk premium tests*
Reference: *Ms. McShane’s Evidence, pages 29,*
Request:

24.1 *Is Ms McShane aware that if her former colleague Dr. Sherwin on repeated occasions told regulators to not use the DCF and comparable earnings tests and rely totally on risk premium tests because these tests were providing artificially “low” estimates.*

Response:

No, Ms. McShane does not believe that to be true. Prior to the period in the mid-1990s, when the impacts of a major recession and restructuring made the comparable earnings and DCF tests unreliable, Dr. Sherwin, along with Ms. McShane, gave weight to all three test. For example, in RH-2-92 for TransCanada PipeLines, 50% weight was given to comparable earnings, 40% weight to risk premium and 10% weight to DCF.

Even when circumstances changed Dr. Sherwin continued to give some weight to the comparable earnings and DCF tests. To illustrate, in the updated testimony of Dr. Sherwin and Ms. McShane in RH-2-94 (the NEB multi-pipeline proceeding), the following statement appeared:

“We continue to regard the comparable earnings and DCF tests as currently not providing reliable results, which would suggest that they should be given little or no weight. Nevertheless, we have given some weight to these techniques – particularly to the comparable earnings technique --- essentially on the grounds that the methodology is conceptually valid and is likely to again become viable in the future, as well as for reasons of consistency in light of our recommendations in earlier proceedings. To totally disregard the comparable earnings technique would render it a “fair weather” standard, given weight only when returns are high and disregarded when returns are low. Similarly, the DCF technique has conceptual validity when applied to industrial companies; however, in light of the depressed earnings experienced by low risk Canadian industrials, and the continued relatively high stock market valuations of the industrials, it is virtually impossible to estimate what growth rates investors expect. In summary, we believe the comparable earnings and discounted cash flow techniques do not warrant a combined weight of more than 25%.”

As discussed in Tab 2, the issues that reduced the reliability of those tests in the mid-1990s have been resolved, so that the BCUC should now give weight to all three.

24.2 *If she is, can she please provide transcript references to these statements.*

Response:

Not Applicable

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24.3 *In Ms McShane's judgment if these techniques can sometimes provide artificially low estimates is it not logically possible that they can also provide artificially high estimates*

Response:

Yes, it is possible. However, under current circumstances that is not the case. For example, there is no evidence that the growth rates used in the DCF tests overstate reasonable expectations, nor is there any evidence the earned returns of the low risk industrials are higher than levels they can reasonably expect to earn going forward.

25. **Topic:** *Poor equity performance*
Reference: *Ms. McShane's Evidence, page 30,*
Request: *Ms McShane refers to the poor equity performance squeezing the Canadian equity market risk premium by 1.3%.*

25.1 *Isn't it a matter of arithmetic that any period of poor equity market performance squeezes the equity market risk premium and good performance enhances it?*

Response:

No. It depends on the performance of the bond market over the same period.

25.2 *Please indicate any years of above average equity market performance that Ms. McShane has thrown out in her estimation of the Canadian equity market risk premium.*

Response:

None. Nor has she discarded any periods of poor market performance.

25.3 *Isn't it true that the bond market returns were unexpectedly low and thus the equity market risk premium high as interest rates increased during the 1960s, 1970s and 1980s just as bond market returns were unexpectedly high and the market risk premium low with the interest rate declines during the late 1980s and 1990s.*

Response:

It is true that the experienced risk premiums were higher when actual bond returns were lower than the corresponding yields, due to capital losses. Similarly, the achieved premiums were lower when bond returns were higher than the corresponding yields, due to capital gains. That observation simply highlights one of the difficulties that arises in the application of the equity risk premium test.

25.4 *Please explain why we should adjust for the effects of interest rate declines and not increases?*

Response:

There is no discussion on p. 30 that indicates that any such adjustment was made.

26. **Topic:** Globalization
Reference: Ms. McShane's Evidence, page 33,
Request:

26.1 *Would Ms. McShane agree that to the extent that US investors now diversify globally that they have reduced their risk and as a result historic US estimates of the market risk premium are biased high.*

Response:

No. Please see responses to JIESC-BCOAPO-CEC No 1 12.2 and 12.3.

26.2 *If not please explain in detail why historic US risk premiums are of relevance in an age when international diversification has lowered risk for all investors, including those in the US.*

Response:

Ms. McShane's testimony explains the relevance of U.S. equity risk premiums generally (see lines 1044-1164 and 1587-1594). Please see response to JIESC-BCOAPO-CEC IR No 1 12.2 for the expected impact of diversification on risk and return.

27. **Topic:** *Foreign investment restrictions*
Reference: *Ms. McShane's Evidence, page 38,*
Request: *Please indicate when the portfolio restriction on tax preferred savings in Canada was first introduced and how that restriction has changed over time.*

Response:

There has been foreign content limitation on registered savings plans since they were first established in 1957. In 1971, the Foreign Property Rule set a 10% foreign content limit on the book value of assets in RRSP's and RPP's. The limit was raised to 20% in 2% increments between 1990 and 1994, and further raised to 30% in 5% increments between 2000 and 2001. The Foreign Property Rule was eliminated in the 2005 Federal Budget.

28. **Topic:** *Market value weights on the TSX*
Reference: *Ms. McShane's Evidence, page 39,*
Request:

28.1 *Please confirm that the market value weights on the TSX will vary with the business cycle and the state of economic indicators like commodity prices.*

Response:

It is confirmed.

28.2 *Can Ms McShane further confirm that there are always winners and losers in the stock market, which is why investors are recommended to hold diversified portfolios and that data like that in footnote 26 just reflects these ex post winner and losers.*

Response:

There are indeed winners and losers. However, the data in footnote 26 show that the highest risk sectors of the economy, not individual stocks, produced relatively low returns over the long-run.

29. **Topic:** *Risk free rate*
Reference: *Ms. McShane's Evidence, page 54,*
Request: *In view of Ms McShane's view on the lock in premium attached to the long Canada bond has Ms. McShane ever used a risk free rate that strips out this risk premium as a basis for her risk premium tests? That is has Ms. McShane ever adjusted her risk free rate in her risk premium tests due to the existence of the lock in premium? If she has not done so in the past would she agree that her previous risk premium estimates were biased high since they were based on a risk free rate that included this lock in premium? If not why not.*

Response:

Ms. McShane has not, to her recollection, adjusted the risk-free rate for a lock-in premium. The higher risk in bonds relative to stocks can be taken into account either by stripping the lock-in premium out of the bonds or by lowering the market risk premium. As long as the magnitude of the market risk premium itself reflects the impact of the lock-in premium, the market risk premium estimates are not upwardly biased.

30. **Topic:** *Harrington text*
Reference: *Ms. McShane's Evidence, page 56,*
Request: *Given the reference to the Harrington text please also provide a photocopy of the tables where Harrington estimates the equity cost for US utilities.*

Response:

The referenced text does not contain tables estimating the equity cost for U.S. utilities.

31. **Topic:** *Utilities*
Reference: *Ms. McShane's Evidence, page 67,*
Request: *Were BCE and Nortel ever included in the utilities index in Canada?*

Response:

BCE and Nortel were never included in the S&P/TSX Utilities Index.

32. **Topic:** *Raw betas*
Reference: *Ms. McShane's Evidence, pages 68,*
Request:

32.1 *Can Ms McShane confirm that what she calls "raw" betas are the actual unadjusted beta estimates that indicate the actual amount of systematic risk of the stock over the estimation period.*

Response:

No. Systematic risk refers to those risks that cannot be diversified away. They would include such factors as interest rates, economic growth and oil prices. For the raw beta of a stock to be an actual measure of the amount of systematic risk that was experienced, first, the market proxy should be a good representation of the universe of possible investments. In practice, an equity market composite is used as a proxy for "the capital market". Thus, the practical application of the CAPM generally starts with a narrower benchmark than the theoretical CAPM assumes. In the case of the Canadian equity market, that narrower benchmark was dominated for a time by the behavior of Nortel, so that the true systematic risks of individual stocks were swamped by the "Nortel effect". Second, the one-factor CAPM effectively assumes that all of the systematic risks faced by a stock can be captured in a single variable, a beta, which measures a stock's volatility against "the market". That assumption is flawed. To repeat part of the quotation of Dr. Burton Malkiel found at Tab 2, lines 1535-1552,

"I have argued here that no single measure is likely to capture adequately the variety of systematic risk influences on individual stocks and portfolios. Returns are probably sensitive to general market swings, to changes in interest and inflation rates, to changes in national income, and, undoubtedly to other economic factors such as exchange rates."

32.2 *Further can she confirm that low utility betas over this period was simply due to their interest sensitivity and the fact that investors treated them like low risk bonds.*

Response:

No. Assuming that "this period" is in reference to 1999-2004, the low utility betas reflect the factors referenced at lines 1865-1874. In fact, the measured sensitivity of utility share prices to changes in bond prices was generally lower for the five year periods ending 1999-2004 than during the five-year periods ending 1993-1998.

33. **Topic:** *Two factor model*
Reference: *Ms. McShane's Evidence, page 71,*
Request: *Would Ms. McShane:*

33.1 *Agree that her model on page 71 is an example of a two factor model where returns are driven by a market factor and a bond factor.*

Response:

It is an example of a two factor model, where the change in the utility stock price is explained both by changes in the equity market composite and changes in long Canada bond prices.

33.2 *Confirm that if a long bond is used as a risk factor that the correct risk free rate is then one which does not have this bond market risk so as a result she can not use this model to estimate risk premiums based on long Canada bond yields.*

Response:

Ms. McShane agrees that, in theory, a true risk-free rate would have no interest rate risk. She also agrees if the model were intended to estimate an interest rate risk premium, then it would be incorrect to add an interest rate risk premium to a bond yield that already included interest rate risk. Ms. McShane did not do this. The calculation at lines 1928-1932 of Tab 2 estimates the utility return and relative risk premium for a utility based on (1) the historic relationship between utility equities and the overall equity and the government bond markets and (2) the expected values for both equity and government bond market returns.

33.3 *Please provide her estimate of the bond market (interest rate) risk premium and would she agree that by definition this can not exceed the risk premium required to hold the long Canada bond since no conventional equity security can have more bond market (interest rate) risk than the long Canada bond.*

Response:

Ms. McShane has not created a model that includes an interest rate risk premium, and thus has not made such an estimate. She agrees that a conventional equity security cannot have more interest rate risk than the long Canada bond.

34. **Topic:** *DCF utility estimates*
Reference: *Ms. McShane's Evidence, page 75,*
Request: *Can Ms. McShane please explain how the monthly DCF estimates are independent given that they rely on growth estimates that analysts do not change on a monthly basis, that is, how does she adjust for overlapping observations.*

Response:

Every month I/B/E/S publishes a new consensus of long-term forecasts. While some of the individual forecasts may not have changed since the prior month, there is no reason to expect them to change every month, since a change in the long-term forecast would require a material event that would change the firm's long-term outlook. Thus, there is no reason to adjust for "overlapping observations" (which Ms. McShane interprets to mean individual forecasts that have not been revised from one month to the next).

35. **Topic:** *Analyst expectations*
Reference: *Ms. McShane's Evidence, page 75,*
Request:

35.1 *Has Ms. McShane ever acknowledged during the course of a regulatory proceeding that analyst earnings forecasts were biased high. Provide copies of the relevant portion of the transcripts.*

Response:

Ms. McShane has acknowledged the results of studies that pointed to the optimism of analysts. She also indicated that the forecasts remained a relevant indicator of investors' expectations when investors share that optimism and price shares accordingly. The transcripts are not readily available.

35.2 *Please provide copies of any Board decisions commenting on Ms. McShane's use of analyst forecasts issued in the last 3 years.*

Response:

Comments from the EUB and the OEB can be found in Appendix 35.2.

36. **Topic:** *US utility samples*
Reference: *Ms. McShane's Evidence, page 76*
Request: *Please provide all documentary evidence that supports the claim that US and Canadian utilities are reasonable proxies for each other. Does this statement refer to gas LDCs, integrated electric utilities, pipelines or all utilities?*

Response:

Ms. McShane did not rely on specific documents to support this conclusion. The conclusion was based on the fact that S&P assigns similar business risk profile scores to the low risk U.S. utilities in her samples and to the typical Canadian utility; she is also aware that the samples of U.S. utilities and Canadian utilities have had similar betas and have similar debt ratings. The statement is not intended to be interpreted to mean that all U.S. utilities are proxies for Canadian utilities, just as not all U.S. utilities would be appropriate proxies for a specific U.S. utility. The comparability of any utility, Canadian or U.S., whether LDC, electric, or pipeline, needs to be considered on a case-by-case basis.

37. **Topic:** *Risk premium regression*
Reference: *Ms. McShane's Evidence, page 78,*
Request: *How are we to interpret the regression estimate on page 78 when the long term interest rate appears as both a dependent variable (through the risk premium) as well as the independent variable?*

Response:

It is equivalent to estimating the relationship between the bond yield and the cost of equity. In that case, the coefficient is .34, that is, the cost of equity increases by 34 basis points for every one percentage point increase (decrease) in the long Canada bond yield. That is the relationship is the mirror of the regression on p. 78, where the equity risk premium increases (decreases) by 66 basis points for every one percentage point decrease (increase) in long Canada yields. There are a number of published studies that have estimated the relationship in the manner set out on p. 78. The most recent, to Ms. McShane's knowledge, is Robert S. Harris and Felicia C. Marston, "The Market Risk Premium: Expectational Estimates Using Analysts' Forecasts", Journal of Applied Finance, 2001.

- 38. Topic:** *Market to book*
Reference: *Ms. McShane's Evidence, page 81-3.*
Request:

38.1 *If the financial flexibility adjustment is designed to get the stock price above its book value, is it not a necessary corollary that no such adjustment is necessary if the Commission observes that the stock price is already well above book value?*

Response:

No. The market-derived tests, risk premium and DCF, lead to estimates of the cost of equity that, in theory, if applied to book value without adjustment – and earned – would equate market value to book value. Thus, the results still need to be adjusted to a level that allows the market value to exceed book value to provide an adequate degree of financing flexibility.

38.2 *Please provide the average market price (average of high and low), average book value per share and average market to book ratio for each of the Canadian utilities in Tab 2 Schedule 12 for the last ten years.*

Response:

Please refer to Appendix 38.2.

39. **Topic:** *Comparable earnings*
Reference: *Ms. McShane's Evidence, page 94,*
Request: *Ms. McShane provides accounting ROE data for 17 low risk utilities. For each can she provide the book value of equity and the total market capitalization. Can she also provide this data, as well as the ROE data similar to Schedule 24, for the firms that make up the TSX 60 largest firms. Can Ms. McShane provide the standard deviation of the earned ROE for each of her 17 low risk utilities, the TSX60 and her sample of utility holding companies (UHCs). Is it Ms. McShane judgment that the operating utilities are of equivalent risk to the UHCs?*

Response:

The accounting data were provided for 17 low risk industrials, not utilities. The book value of equity for the 17 low risk industrials was provided in response to BCUC IR No 1 88. The market capitalization for the 17 low risk industrials was provided in response to BCUC IR No 1 91.3.2. The standard deviation of the earned ROE for each of the 17 low risk industrials is provided in Appendix 39. Ms. McShane has not compiled data specifically for the TSX 60. It is Ms. McShane's judgment that the utility holding companies are somewhat riskier than the operating companies, although the holding companies benefit from diversification of operations.