RÉPONSES DE GAZIFÈRE INC. AUX DEMANDES DE RENSEIGNEMENTS N° 3 DE LA RÉGIE RELATIVE AU RENOUVELLEMENT DU MÉCANISME INCITATIF, À LA FERMETURE RÉGLEMENTAIRE DES LIVRES POUR LA PÉRIODE DU 1ER JANVIER 2009 AU 31 DÉCEMBRE 2009, À L'APPROBATION DU PLAN D'APPROVISIONNEMENT POUR L'EXERCICE 2011 ET À LA MODIFICATION DES TARIFS DE GAZIFÈRE INC. À COMPTER DU 1ER JANVIER 2011

PHASE 2 - TAUX DE RENDEMENT

1. Référence : Pièce B-1, GI-4, document 1.2, schedule 1, page 1.

Préambule :

Référence de la colonne Canadian A-Rated Utility bonds :

« Series is comprised of the CBRS Utilities Index through 1995; CBRS 30-year Utilities Index from 1996- August 2000; a series of liquid long-term utility bonds maintained by Foster Associates from September 2000 forward. »

Demandes :

1.1 Veuillez fournir la liste des sociétés incluses pour les deux CBRS Utilities Index et expliquer la méthodologie de calcul de l'indice.

Réponse 1.1:

The index was discontinued in 2000 and Ms. McShane has no documentation on the constituents except for in 1994, when the A rated index included issues of Bell Canada , BC Telephone, Canadian Utilities, Interprovincial Pipe Line, Maritime Telephone & Telegraph, TransAlta Utilities and New Brunswick Telephone. The index represented the average of the individual bond yields as reported at the close of business on the last trading day of each month. Ms. McShane has no additional documentation.

1.2 Veuillez fournir la liste des sociétés ainsi que les additions et les retraits depuis le début de l'indice maison développée par Foster Associates. Veuillez expliquer en détails la méthodologie du calcul de l'indice (moyenne pondéré ou moyenne arithmétique, etc.).

Réponse 1.2:

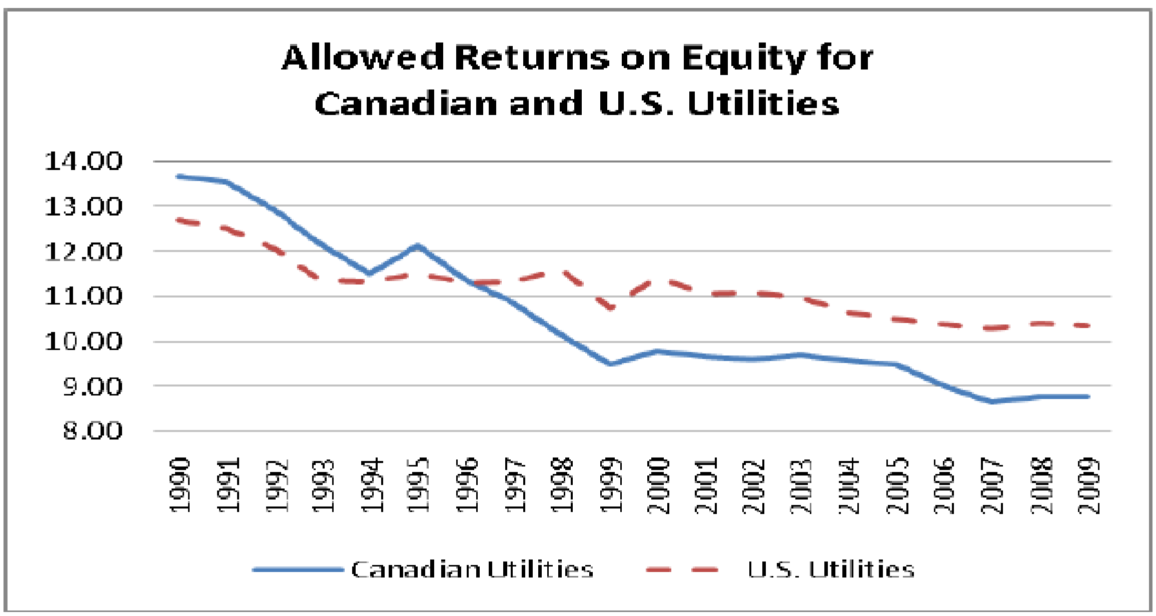
To compute the Foster Associates' A-Rated Utility Index, RBC Daily bid yields are collected for the last day of each month for the companies and issues in the index. An arithmetic average of these yields is then used to calculate our monthly index number. The companies and issues included in the index, and when they were introduced and removed from the index, are included in exhibit GI-30, document 1.2.

2. Références :
(i) Pièce-B-1, GI-4, document 1, page 8 ;
(ii) Pièce-B-1, GI-4, document 1, page 21 ;
(iii) Pièce-B-1, GI-4, document 1, page 29 ;
(iv) Pièce-B-1, GI-4, document 1, page 33, note de bas de page no 29 ;
(v) Pièce-B-1, GI-4, document 1, pages 50 et 51 ;
(vi) Pièce-B-1, GI-4, document 1.2, schedules 5 et 15 ;
(vii) Pièce-B-1, GI-4, document 1.2, schedule 2, pages 1 à 3.

Préambule :

(i)

Figure 1



Source: Schedule 2.

(ii) « *While market data for the Canadian utilities provide some perspective on the fair return for a benchmark utility, a more accurate assessment can be made by reliance on a sample of U.S. utilities drawn from a much broader universe and selected using criteria that are designed to (1) identify companies that are of relatively similar risk to an average risk Canadian utility and (2) produce a large enough sample of companies to ensure reliable cost of equity test results. Since the majority of Canadian utilities, including Gazifère, are largely "pipes" and "wires" utilities, the sample of U.S. utilities which serve as a proxy for a benchmark Canadian utility was selected according to criteria designed to identify relatively low risk, distribution (gas and electric) utilities.* »

(iii) *« Gazifère's common equity ratio is similar to those of smaller gas and electric utilities in Canada, but remains well below those maintained and allowed for U.S. natural gas distribution utilities. The average allowed common equity ratio for U.S. gas distribution utilities over the period 2006-2009 averaged 49%.*[25] *»*

(iv) *« I am strongly of the view that the comparable earnings test is the only test which measures returns in a manner compatible with the base (original cost) to which they are applied. However, I also recognize that the comparable earnings test is the most controversial, not only in terms of its applicability to the estimation of a fair return, but in terms of its application (e.g., criteria for selection of comparables, period over which returns should be measured, need for adjustments for relative risk). Therefore, for the sole purpose of this evidence, in order to limit the issues relevant to the estimation of a fair return, I have applied risk premium and discounted cash flow tests only. »*

(v) *«Third, U.S. regulated companies are reasonable proxies for estimating the cost of equity for a benchmark Canadian gas distribution utility. The operating (or business) environments are similar, the regulatory model in the U.S. is similar to the Canadian model, Canadian and U.S. capital markets are significantly integrated and the cost of capital environment, as indicated by relatively similar levels of interest rates, is comparable. »*

(vi) Schedule 5

TRAILING FOUR QUARTERS CAPITAL STRUCTURE BASED ON TOTAL CAPITAL FOR BENCHMARK SAMPLE OF U.S. DISTRIBUTION UTILITIES

Company	Long Term Debt %	Short Term Debt %	Preferred %	Common Equity %
AGL RESOURCES INC	44.3	12.5	0.0	43.2
CONSOLIDATED EDISON	49.7	1.5	1.0	47.8
NEW JERSEY RESOURCES	36.0	8.4	0.0	55.6
NICOR INC	25.3	22.8	0.0	51.9
NORTHWEST NATURAL GAS CO	43.0	9.1	0.0	47.9
NSTAR	49.0	12.2	0.9	37.9
PIEDMONT NATURAL GAS CO	38.9	16.8	0.0	44.3
SOUTH JERSEY INDUSTRIES INC	41.1	13.9	0.0	45.0
WGL HOLDINGS INC	34.8	7.6	1.4	56.2
Mean	40.2	11.6	0.4	47.8
Median	41.1	12.2	0.0	47.8

Trailing four quarters ending calendar year 3rd quarter 2009.

Source: Company Annual Reports to Shareholders and 10-Ks.

Demandes :

2.1 Veuillez déposer sous format électronique (fichiers pdf) les FORM 10-K de la «Securities and Exchange Commission» pour l'exercice 2008, ou 2009 si disponible, de chaque société américaine de votre échantillon de la référence (vi).

Réponse 2.1:

The requested Form 10-Ks are attached as:

GI-30, document 1.3 to document 1.11.

2.2 Veuillez préciser, pour chaque société américaine de votre échantillon de la référence (vi), le nom de l'organisme régulateur qui a autorisé le dernier rendement sur l'avoir-propre (ROE), la date à laquelle ce rendement a été autorisé, le rendement et la structure de capital autorisé, l'identification de la référence de chaque décision avec, si possible, le lien hypertexte menant à la version électronique de chacune.

Réponse 2.2:

The requested information for each of the U.S. companies is attached as GI-30, document 12.

2.3 Veuillez présenter, pour chaque société américaine de votre échantillon de la référence (vi), le pourcentage de chaque activité réglementée ou non réglementée (production, transport, distribution de gaz naturel, d'électricité ou autre, etc) et la répartition en pourcentage du type de clientèle (résidentielle, commerciale et industrielle) pour les activités de distribution de gaz naturel uniquement.

Réponse 2.3:

The requested information for each of the U.S. companies is attached as GI-30, document 1.13.

2.4 Veuillez indiquer les sociétés canadiennes et américaines de vos échantillons des références (vi) et (vii) ayant des tarifs fixés selon une réglementation incitative et donner une explication de ces mécanismes incitatifs ainsi que les rendements additionnels pouvant être obtenus. Veuillez fournir l'identification et la référence de chaque décision avec, si possible, le lien hypertexte menant à la version électronique de chacune.

Réponse 2.4:

The requested information for the U.S. benchmark and Canadian utility companies with incentive regulation is attached as GI-30, document 1.14.

2.5 Veuillez décrire les comptes de frais reportés, les comptes de nivellement et les comptes de crédits reportés inclus à la base de tarification de Gazifère ainsi que ceux hors base. Veuillez comparer ces comptes à ceux des sociétés canadiennes et américaines de vos échantillons de la référence (vi) et (vii). Veuillez expliquer les différences.

Réponse 2.5:

The deferral accounts for each of the Canadian utilities are attached as GI-30, document 1.15. Ms. McShane has not undertaken a detailed review of each of the deferral accounts and their rate base/non-rate base treatment for the U.S. utilities. The information that she has collected with respect to risk-mitigating mechanisms for each of the companies is attached in GI-30, document 1.15.

2.6 Veuillez fournir pour chaque société canadienne de la référence (vii) et pour chaque société américaine uniquement de la référence (vi), les rendements de l'avoir propre totaux réalisés et ce pour la période présentée soit de 1990 à 2009. Veuillez fournir vos références détaillées. Veuillez également présenter sous le même format que celui de la référence (i), un graphique portant sur les rendements réalisés à partir des données fournies.

Réponse 2.6:

The data that Ms. McShane had available to her, along with a graph of the data, for both the U.S. and Canadian actual returns on equity are included as GI-30, document 1.16.

2.7 Les passifs reliés aux fonds de pension et autres bénéfices marginaux ainsi que les passifs reliés aux soins de santé sont des passifs significatifs dans les bilans des sociétés américaines. Veuillez indiquer si vous en tenez compte dans l'évaluation de la structure de capital réelle des sociétés américaines faisant parties de votre échantillon de la référence (vi). Veuillez motiver et expliquer.

Réponse 2.7:

Ms. McShane did not make any adjustments to the calculated capital structures of the U.S. utilities for liabilities related to pensions or other post-retirement benefits. The capital structure ratios are expressed as proportions of investor-supplied capital, which is consistent with the manner in which they would be expressed for regulatory purposes, by equity analysts and by the companies themselves.

2.8 À votre connaissance, existe-il des études empiriques démontrant l'effet sur la cote de crédit et sur la capacité d'emprunt des sociétés américaines ayant des passifs significatifs dans leur bilan tel que ceux reliés aux fonds de pension et aux soins médicaux. Si oui, veuillez les identifier et en déposer les conclusions principales.

Réponse 2.8:

With respect to credit ratings, Ms. McShane is aware of a study by Mirko Cardinale "Corporate Pension Funding and Credit Spreads", *Financial Analysts' Journal*, Vol. 63, No. 5, 2007 which analyzed the impact of unfunded pension liabilities on credit spreads (not credit ratings per se). The study found that unfunded pension liabilities are incorporated into credit spreads. The article cited the following empirical studies which showed,

according to Cardinale, that "unfunded pension liabilities do, indeed, affect corporate debt ratings."

Martin, L.J., and G.V. Henderson, "On Bond Ratings and Pension Obligations: A Note." *Journal of Financial and Quantitative Analysis*, Vol. 18, No. 4 (December 1983):463–470.

Carroll, T.J., and G. Niehaus, "Pension Plan Funding and Corporate Debt Ratings," *Journal of Risk and Insurance*, Vol. 65, No. 3 (September 1998):427–443.

Maher, J. "Pension Obligations and the Bond Credit Market: An Empirical Analysis of Accounting Numbers," *Accounting Review*, Vol. 62, No. 4 (October 1987):785–798.

With respect to other post-retirement benefits, Ms. McShane is aware of a study, Maher, J., "Perceptions of Postretirement Benefit Obligations by Bond Rating Analysts", *Review of Quantitative Finance and Accounting*, 6 (1996): 79-94, which concluded that postretirement obligations other than pensions affect the credit rating. The article cited earlier studies which analyzed the impact of postretirement benefit obligations on equity share prices, including Inder, K.K. and M.L. Lundder, "The Economic Consequences of SFAS 106 in Rate-regulated Enterprises," *The Accounting Review* 69, 364-380, (April 1994), which examined the effect on investors of the announcement of accounting standard SFAS 106 that required the disclosure of the postretirement benefit obligations. The referenced study concluded that the announcement of SFAS 106 did not have an impact on the share prices of regulated firms, while unregulated firms experienced a reduction in firm value. Maher concluded that the finding in the Inder and Lundder study is "consistent with the ability of rate-regulated firms to recover additional postretirement obligation costs through the regulatory rate setting process while non regulated firms experience a reduction in firm value."

2.9 Dans la mesure où le calcul pour établir le pourcentage d'avoir propre des sociétés américaines de la référence (vi) ne tient pas compte des passifs tel que ceux reliés aux fonds de pension et aux soins de santé, veuillez indiquer si le résultat de ce calcul représente un portrait fidèle et exact du risque financier des sociétés de la référence (vi). Est-ce que votre réponse serait la même si la somme de ces capitaux propres et empruntés est inférieur à la valeur nette comptable des actifs réglementés de distribution du gaz naturel ? Veuillez commenter et expliquer.

Réponse 2.9:

The equity ratios presented in Schedule 5 are based on the average of four quarters as obtained from the 10-Qs. Schedule 15 presents end of year equity ratios

calculated from S&P's Research Insight data base and represent the year-end capital structures. The debt, preferred and common stock values obtained from Research Insight are as reported by the companies in their audited financial statements. In neither case were the data adjusted for liabilities related to pension funds or health care but they do include capitalized lease obligations in debt.

The debt rating agencies, in their calculations of capital structure ratios, make a number of adjustments to the reported values, both positive and negative. S&P, for example, makes adjustments to the company reported balance sheets for the following items:

Hybrids reported as equity
Post-retirement benefit obligations
Additional Items included in debt (not specified)
Accrued interest not included in reported debt
Asset retirement obligations

A comparison of the equity ratios for the benchmark sample as calculated for year-end 2008 from the financial statements (as per Schedules 15) and as adjusted by S&P is presented in the table below. S&P did not have 2008 data for New Jersey Resources and South Jersey Industries in the most recent debt rating reports.

	Research Insight	S&P
AGL Resources Inc	39.4%	41.0%
Consolidated Edison Inc	48.5%	42.0%
New Jersey Resources [1/]	50.0%	48.5%
Nicor Inc	44.0%	46.3%
Northwest Natural Gas Co	45.3%	44.4%
NStar	36.8%	36.0%
Piedmont Natural Gas Co	41.9%	44.6%
South Jersey Industries [2/]	47.4%	45.4%
WGL Holdings Inc	51.7%	55.3%
Average	45.0%	44.8%

[1/] 2007
[2/] 2006-2008 average

The differences between the two averages are minimal. While some of the utilities' total book value capitalization is less than the total plant, property and equipment, since the

market value common equity ratios of the utilities, as shown on Schedule 19, are well in excess of the book value common equity ratios, the book value common equity ratios are a conservative measure of the financial risk of the firms.

2.10 Veuillez calculer, à partir des FORM 10-K de chaque société américaine de votre échantillon de la référence (vi), les ratios suivants :

- Avoir des actionnaires divisé par les actifs totaux ;
- Avoir des actionnaires plus la dette à court terme et long terme divisé par les actifs totaux ;
- Avoir des actionnaires plus la dette à court terme et long terme divisé par les actifs nets (propriétés, immobilisations et équipements) pour la distribution de gaz naturel seulement.

Réponse 2.10:

The requested calculations for each of the U.S. companies in reference (vi) are attached as GI-30, document 1.17. The financial statements do not permit the segregation of property, plant, and equipment to natural gas only. The ratios presented in the attachment represent total net property, plant, and equipment.

2.11 Veuillez expliquer comment les agences de crédit calculent le ratio d'endettement total et préciser quel est le ratio d'endettement maximal permettant d'obtenir une cote de crédit A.

Réponse 2.11:

The information requested by debt rating agency is provided below.

DBRS:

In its *Methodology in Rating Utilities* (June 2002) DBRS stated: "The percentage of debt is defined as short- and long-term debt, divided by short- and long-term debt, plus equity. When leases are significant, the capitalized value of the lease is added to both the numerator and denominator." In its *Preferred Share and Hybrid Methodology* (August 2009), DBRS indicated that, for hybrid securities (i.e., those that have features of both debt and equity), it assesses the equity content of the specific securities and assigns an equity weighting to the security. Based on the equity weighting assigned to the security, DBRS

calculates an adjusted debt ratio. For example, if a hybrid security that may be classified as debt for financial statement purposes is assigned an equity weighting of 65%, the adjusted debt ratio would reflect 35% of the issue in the debt component and 65% of the issue in the equity component. DBRS does not specify debt ratio guidelines by debt rating categories.

Moody's:

Moody's debt ratio calculation adjusts the reported debt and equity numbers for underfunded and unfunded pension obligations and operating leases. They do not adjust for other post-retirement employment benefits (OPEBs) as, in their view, OPEBs are generally not debt-like. It also makes adjustments to account for the equity content of hybrid securities. For gas and electric utilities, Moody's indicates a guideline debt/capitalization ratio range for an A rating of 35%-45%. As with all of the debt rating agencies, the guidelines are not applied mechanically and take into account numerous qualitative and quantitative factors. In Moody's *Rating Methodology: Regulated Electric and Gas Utilities* (August 2009), the debt/capitalization ratio factor is accorded a weighting of 7.5%.

Standard & Poor's:

Standard & Poor's makes adjustments to the reported debt and equity amounts for unfunded pensions and OPEBs, operating leases, and unfunded asset retirement obligations and hybrid securities based on equity content. In its documentation of the analytical adjustments that it makes to reported amounts of debt and equity on the financial statements, Standard & Poor's has taken explicit notice of the history of regulatory support for the pension and OPEB expenses. S&P specifies six different business and financial risk ranking categories. The business risk ranking categories range from "Excellent" (lowest business risk, the rank of most Canadian utilities rated by S&P) to "Vulnerable" (highest business risk); the financial risk ranking categories range from "Minimal" to "Highly Leveraged". A company with an Excellent business risk rank and "Modest" (the third lowest financial risk category) would, in the S&P matrix, be accorded an A rating. The range of debt ratios for "Modest" financial risk is 35%-45%. S&P states that the guidelines are simply that, guidelines, not "gospel or guarantees." Further, the guidelines apply across industries, not just to utilities. S&P has noted that, due to the generally more favourable credit characteristics of utilities, ratings will be based on the more accommodative end of the indicative ratio ranges.

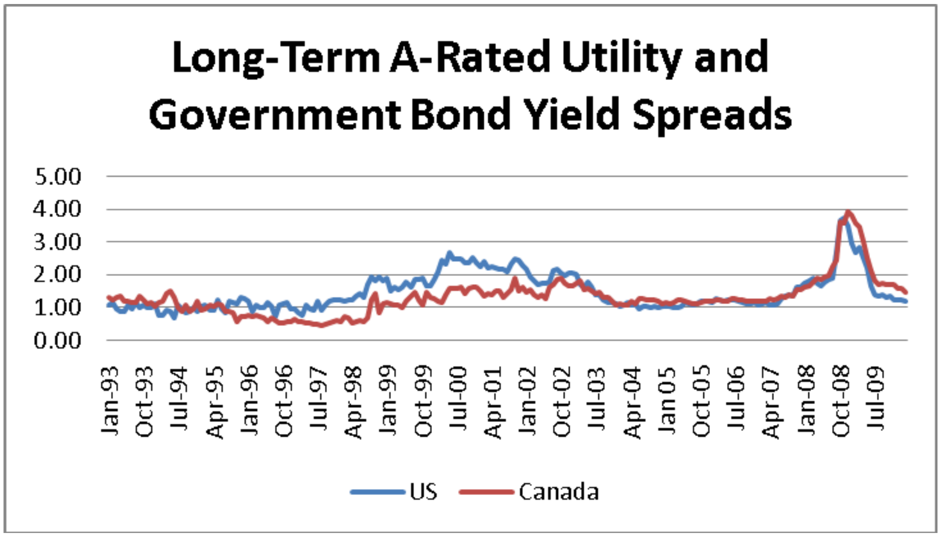
2.12 Veuillez étayer vos affirmations citées à la référence (v) en précisant en quoi l'environnement réglementaire, légal, fiscal et comptable est similaire au Canada et aux États-Unis. Veuillez motiver et expliquer.

Réponse 2.12:

With respect to the overall capital market environment, the adoption of inflation targets in 1991 and the dramatic improvement in Canada's fiscal position over the past fifteen years (first government surplus in fiscal year 97/98) resulted in Canadian interest rates closely tracking U.S. rates. Over the past 15 years (1995-2009), the average yield on 10-year Canada bonds exceeded the average yield on 10-year Treasury bonds by only 20 basis points, compared to an average differential of over 115 basis points over the period 1982-1994. Inflation rates measured using the GDP deflator in the two countries were virtually identical over the 1995-2009 period. As of October 2009, the 2010-2019 10-year government bond yields in the two countries were forecast to be within 20 basis points of each other, with Canada 0.2% below the U.S. (*Consensus Economics*, October 2009). Even with the higher budget deficits projected for the U.S. relative to Canada, currently, forecasts of Canadian and U.S. government 10-year bond yields are still within 40 basis points of each other at 5.0% and 5.4% over the period 2012-2020, respectively (*Consensus Economics*, April 2010).

A 2007 study by the Bank of Canada found that since government bond yields have converged in the two countries, the difference in the cost of equity financing between the two countries is statistically insignificant (Lorie Zorn, *Estimating the Cost of Equity for Canadian and U.S. Firms*, Bank of Canada, Autumn 2007).

As regards corporate bond yields and spreads, the pattern over time in the two countries is similar, as demonstrated in the table below. The correlation between the two series of A rated utility spreads since 1995 has been 75%, with a higher correlation (96%) since 2005, with the elimination of the Foreign Property Rule in Canada.



Note to Chart: Moody's long-term A rated utility bonds for U.S.; CBRS long-term A rated utility bonds for Canada from 1993-August 2000 and a series of Canadian utility issues maintained by Foster Associates Inc. thereafter.

With respect to the tax regime, while the tax treatment of dividends and interest has differed in the two countries (Canada has had a dividend tax credit for many years; the U.S. lowered dividend tax rates in mid 2003), the marginal investor in both countries is likely to be non-taxable (e.g., a pension fund or an RRSP/IRA). On average, over half the shares in the companies in the benchmark U.S. utility sample are held by institutions. In this context, the average benchmark sample dividend yield/long-term Treasury bond yield for the period 1995-May 2003 (pre-dividend tax cut) was virtually identical to the average ratio from June 2003 to September 2008 (prior to the equity market crash). If the dividend tax cut had had a significant impact on investors' required returns, there should have been a material decline in the dividend/bond yield ratio after the tax cut.

Consequently the capital market environment supports the comparability of Canadian and U.S. utilities.

With respect to the specific comparability of Canadian utilities and the benchmark sample of U.S. utilities, at the highest level, regulated companies in the two countries are governed by the fair return standard, with the same three requirements. They are generally (although not exclusively) regulated on the basis of an original cost rate base. This approach distinguishes them from regulated companies in other countries (e.g., United Kingdom) which employ a different construct for regulated value.

That said, Ms. McShane recognizes that the application of the regulatory model in the two countries is not identical. In the U.S., the approach has followed the philosophy that the regulated company should be provided an opportunity to earn a fair return on average, but not necessarily achieve the allowed return each and every year, whereas in Canada, the regulatory model historically has taken a form that has provided somewhat greater assurance that regulated companies will earn the allowed return from year to year. With the longer-term risk that utilities will be not be afforded the opportunity to earn a compensatory return on the capital invested, and to recover the capital invested, Ms. McShane has not found there to be a notable difference. However, in the U.S., utilities recover their income tax expense on a normalized basis, whereas most Canadian utilities, (with a few exceptions), recover their income taxes on a flow-through basis. The normalized basis of tax recovery improves cash flows during periods of growth and makes the regulated companies less vulnerable to an inability to recover that expense in the future should the ability to recover that expense be impaired due to, for example, a competitive ceiling on rates.

It bears noting that, as indicated at page 51 of Ms. McShane's testimony, all of the benchmark utilities are in the same business risk category as the typical Canadian utility; the average debt ratings of the sample are A (S&P) and A3 (Moody's), similar to those of the universe of Canadian utilities with rated debt, and the median *Value Line* Safety rank of the U.S. distribution utility sample is 1, lower than the Safety ranks of the two Canadian regulated companies covered by *Value Line* (TransCanada Corp. and Enbridge Inc, both with Safety Ranks of 2).

With respect to specific regulatory mechanisms, while Canadian utilities tend to have more deferral accounts than U.S. utilities, which largely explains the lower year-to-year variability in returns exhibited by Canadian utilities, the benchmark U.S. utilities also have access to various deferral and variance accounts which temper both cost and revenue variability in key areas. All of the gas distribution utilities in the sample have deferral accounts for gas costs, which for gas utilities that are in the retail business, account for over 50% of their costs.

Other protective mechanisms which have been adopted by U.S. regulators include bad debt recovery mechanisms, cost trackers for infrastructure replacement and pipeline integrity costs, energy efficiency program costs, manufactured gas plant remediation (for gas utilities), post-retirement employee benefits, and environmental costs. For each of the benchmark sample, the individual adjustment mechanisms and deferral accounts are listed in response to 2.5.

With respect to variability in revenues, variability arising from weather for gas distributors and variability due to reduction in usage (e.g., as a result of conservation) for both gas and electric utilities are key potential sources of year to year revenue

variability. The use of a weather normalization clause or deferral account to adjust revenues for under/over recovery of fixed charges due to weather for gas utilities or decoupling revenues from consumption are common means to temper these sources of revenue variability in both the U.S. and Canada.

Of the nine utilities in the benchmark sample, eight have either weather normalization clauses, decoupling or a rate design which recovers a high proportion of their fixed costs through fixed charges in a significant proportion of the service area and the ninth will apply for decoupling as provided for by legislation once its current rate plan has expired.

In sum, the regulatory models, while not applied identically, are sufficiently similar to render the utilities included in the benchmark sample of reasonably comparable risk to an average risk Canadian utility. Further, as Ms. McShane indicated at lines 1288-1290 of her testimony, "To the extent that the business risks of the U.S. distribution utilities are viewed as of higher business risk than the typical Canadian distribution utility, the U.S. utilities have higher common equity ratios (lower financial risk)."

3. Références : (i) Pièce B-1, GI-4, document 1, page 1 ;
(ii) Pièce-B-1, GI-4, document 1.2, schedule 2, pages 1 à 3.

Préambule :

(i) *« In addition, the cost of equity moves in the same direction as the utility cost of debt; this relationship has not been reflected in the automatic adjustment mechanism. »*

Demandes :

3.1 Veuillez fournir une comparaison des coûts de financement au cours des 5 dernières années à partir des émissions de dettes et d'actions privilégiées de votre échantillon canadien de la référence (ii). Veuillez fournir un sommaire des termes des financements.

Réponse 3.1:

GI-30, document 1.18 summarizes the publicly placed debt issues for which Ms. McShane has information for the Canadian companies and their Canadian subsidiaries since 2005.

3.2 À partir de cette comparaison, veuillez préciser si les coûts de financement ont augmenté, diminué ou sont demeurés stables durant la période et, notamment, les deux dernières années. Veuillez expliquer et motiver votre réponse.

Réponse 3.2:

To respond to this question, the information provided in response to RÉGIE 3.1 above has been supplemented with month-end yields from December 31, 2005 to April 30, 2010 on a sample of bonds that have been issued by either the holding company or its subsidiaries. The yields on these bonds are attached as GI-30, document 1.19. The data indicate that the cost of long-term financing fluctuated within an approximately one percentage point range between the end of 2005 to mid-2008, then began to rise significantly, peaking in late 2008, followed by a decline, with current yields similar to those prevailing in on average during 2006, at somewhat higher spreads to the long-term Canada bond yield.

4. Références : (i) Pièce B-1, GI-4, document 1, page 44 ;
(ii) Pièce B-1, GI-4, document 1, page 69 et la note de bas de page 80.

Préambule :

(i) *« The standard deviation of market returns is the principal measurement of total market risk. To estimate the relative total risk of a benchmark distribution utility, I used the S&P/TSX Utilities Index as a proxy. »*

(ii) *«It is virtually identical to the refined automatic adjustment formula adopted by the OEB in EB-2009-0084.[80]*

Under the revised formula, the forecast long-term Government of Canada bond yield would be estimated in a similar way as it was under the original automatic adjustment formula. For Gazifère, the forecast long-term Canada bond yield would be estimated using the October Consensus Economics, Consensus Forecasts of 10-year Government of Canada bond yields plus the September actual average daily spread between 30-year and 10-year Government of Canada bond yield[80]. The relevant corporate bond yield spreads would be calculated using the actual difference between the yields on the long-term A rated Corporate Bond Index available from TSX Inc. and the yields on long-term Canada bonds prevailing at the time of the Consensus Forecasts.[82]. »

Note de bas de page 80: *«The principal difference is that the proposed revised formula relies on long-term A rated corporate bond yield spreads, whereas the revised OEB formula relies on long-term A rated utility bond yield spreads which are obtained from Bloomberg. The index* *selected by the OEB is a reasonable alternative to the A rate Corporate Bond Index proposed here. »*

Demandes :

4.1 Veuillez fournir la liste des sociétés ainsi que les additions et les retraits depuis les cinq dernières années de l'indice S&P/TSX Utilities Index de la référence (i). Veuillez expliquer en détails la méthodologie du calcul de l'indice (moyenne pondérée ou moyenne arithmétique, etc.).

Réponse 4.1:

Ms. McShane has not tracked the additions and withdrawals from the index. Revisions to the S&P/TSX Composite are generally only made as part of a quarterly review. The S&P/TSX Utilities index is comprised of all companies included in the S&P/TSX Composite and classified in Global Industry classification Standard (GICs) category 55 – Utilities. The constituents of the index as of December 31, 2005, 2006, 2007, 2008 and 2009 and April 2010 are presented in the attached file GI-30, document 1.20. The eligibility criteria for inclusion in the S&P/TSX Composite Index are found in the attached document GI-30, document 1.21. The Canadian index calculations are set forth in the document as follows:

> **On any given day, the index value is the quotient of the total float-adjusted market capitalization of the index's constituents and its divisor. Continuity in index values is maintained by adjusting the divisor for all changes in the constituents' share capital after the base date. This includes additions and deletions to the index, rights issues, share buybacks and issuances, and spin-offs. The divisor's time series is, in effect, a chronological summary of all changes affecting the base capital of the index. The divisor is adjusted such that the index value at an instant just prior to a change in base capital equals the index value at an instant immediately following that change. (page 10)**

4.2 Veuillez fournir la liste des sociétés ainsi que les additions et les retraits depuis les cinq dernières années du DEX Long Term Bond Index-Corporate A de la référence (ii). Veuillez expliquer en détails la méthodologie du calcul de l'indice (moyenne pondérée ou moyenne arithmétique, etc.).

Réponse 4.2:

The information with respect to the additions and withdrawals requested by the Régie is not available. Foster Associates has requested information from the PC Bond Index team at the TSX regarding the issues that currently make up the index and have been told that

information is forthcoming, but it has not yet been received. Ms. McShane will make that information available to the Régie when she receives it.

The DEX Long Term Corporate A bond index is comprised of 134 issues. The eligibility criteria utilized by PC Bond are set forth in GI-30, document 1.22. This document sets forth the methodology under the Universe Bond Index and encompasses the DEX Long Term Bond Index – Corporate A. As stated in the attached document:

> **The securities in all DEX Fixed Income Indices are weighted by relative market capitalization. Thus, the return on a bond influences the return on the index in proportion to the bond's market value. Market value of a bond equals the adjusted amount outstanding, multiplied by the gross price (market price plus accrued interest), with the gross price expressed as a percentage. (page 4)**

4.3 Veuillez expliquer les différences entre l'indice utilisé par l'OEB et votre proposition.

Réponse 4.3:

As indicated in response 4.2, the DEX Long-term A rated index contains 134 long-term A rated corporate issues.

The Bloomberg A rated Utility Index contains only utility issues. The issuers represented in the index include:

Canadian Utilities Limited
CU Inc.
Enbridge Gas Distribution
Gaz Métro Inc.
Hydro One
Hydro Ottawa
Newfoundland Power
Terasen Gas
Terasen Gas (Vancouver Island)

5. Référence : Pièce B-1, GI-4, document 1.2, schedule 6, pages 1 et 2.

Préambule :

Calcul de la prime de risque de marché

Demande :

5.1 À partir de la référence citée pour établir la prime de risque de marché, veuillez fournir, en format Excel, les données suivantes :

- Les rendements annuels du marché boursier canadien pour la période 1924-2009.
- Les rendements annuels du marché boursier américain pour la période 1926-2009.
- Les rendements annuels pour la période 1924-2009 des obligations à long terme du gouvernement canadien en excluant les gains et pertes en capital d'une part et en incluant les gains et pertes en capital d'autre part.
- Les rendements annuels pour la période 1926-2009 des obligations à long terme du gouvernement américain en excluant les gains et pertes en capital d'une part et en incluant les gains et pertes en capital d'autre part.

Réponse 5.1:

The requested information is included as GI-30, document 1.23.

6. Référence : Pièce B-1, GI-4, document 1.

Préambule :

Coût du capital prospectif

Demandes :

6.1 Veuillez indiquer quel est le coût du capital prospectif utilisé par Gazifière.

Réponse 6.1:

Le coût moyen pondéré en capital prospectif utilisé par Gazifère selon les données approuvées par la Régie dans le cadre du dossier tarifaire 2010 se chiffre à 6,14%.

6.2 Veuillez déposer et expliquer la méthodologie détaillée du calcul du coût du capital prospectif utilisé par Gazifère.

Réponse 6.2:

Veuillez trouvez ci-dessous le calcul détaillé de ce montant :

Description	**Pondération**	**Taux**	**Rendement sur la base de tarification**	**Impôt**	**Moyenne pondéré après impôt**
Dette à long terme	**55 %**	**6,49 %**	**3,57 %**	**29,9%**	**2,50 %**
Dette à court terme	**5 %**	**2,21 %**	**0,11 %**	**29,9%**	**0,08 %**
Avoir	**40 %**	**8,89 %**	**3,56 %**		**3,56 %**
			7,24 %		**6,14 %**

7. Référence : Pièce B-1, GI-4, document 1, page 25.

Préambule :

« Gazifère's gross margin is largely derived from the residential and commercial sectors; Rates 1 and 2 account for approximately 32% and 63% respectively of its delivery margin. The remainder of its margin is derived predominantly from three large customers operating in a single resource-based industry, the pulp and paper industry. »

Demande :

7.1 Veuillez fournir dans un fichier Excel les informations suivantes :

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Nombre de clients - **Résidentiel** - **Commercial et institutionnel** - **Industriel continu** - **Industriel interruptible** **Total :**											
Volume - **Résidentiel** - **Commercial et institutionnel** - **Industriel continu** - **Industriel interruptible** **Total :**											
Revenu - **Résidentiel** - **Commercial et institutionnel** - **Industriel continu** - **Industriel interruptible** **Total :**											
Volume/client - **Résidentiel** - **Commercial et institutionnel** - **Industriel continu** - **Industriel interruptible** **Total :**											
Revenu/client - **Résidentiel** - **Commercial et institutionnel** - **Industriel continu** - **Industriel interruptible** **Total :**											

Réponse 7.1:

Veuillez vous référer à la pièce GI-30, document 1.1.

8. Références : (i) Pièce B-1, GI-4, document 1, pages 58- 59 ;
(ii) Pièce B-1, GI-4, document 1, page 60 ;
(iii) Pièce B-1, GI-4, document 1.1, appendix A, page A-4.

Préambule :

(i) *« The financing flexibility allowance is an integral part of the cost of capital as well as a required element of the concept of a fair return. The allowance is intended to cover three distinct aspects: (1) flotation costs, comprising financing and market pressure costs arising at the time of* *the sale of new equity; (2) a margin, or cushion, for unanticipated capital market conditions; and (3) a recognition of the "fairness" principle. ....*

The fairness principle recognizes the ability of competitive firms to maintain the real value of their assets in excess of book value and thus would not preclude utilities from achieving a degree of financial integrity that would be anticipated under competition. » (nous soulignons)

(ii) *A full recognition of the disparity between the levels of financial risk in the market value capital structures and utility book value capital structures warrants an adjustment to the "bare bones" cost of equity of no less than 100 basis points (See Appendix E and Schedules 19-21). »*

(iii) *« In equilibrium, market value should equal replacement cost. In the presence of inflation, even at moderate levels, absent significant technological advances, replacement cost should exceed the original cost book value of assets. Consequently, the market value of utility shares should be expected to exceed their book value.*

Therefore, when the allowed return on original cost book value is set, a market-derived cost of attracting capital must be converted to a fair and reasonable return on book equity. The conversion of a market-derived cost of capital to a fair return on book value ensures that the stream of dollar earnings on book value equates to the investors' dollar return requirements on market value. »

Demande :

8.1 Veuillez expliquer en quoi le « fairness principle » requerrait de maintenir la valeur au marché de l'avoir des actionnaires ou de maintenir un ratio valeur au marché par rapport à la valeur comptable comme critère de détermination du taux de rendement.

Réponse 8.1:

A fair return is one that meets all three requirements of the fair return standard. The comparable investment requirement provides the utility an opportunity to earn a return on investment commensurate with that of comparable risk enterprises. If comparable risk enterprises (including unregulated enterprises) are able to consistently achieve market values that are consistently well in excess of book value, the allowed return should recognize that ability, i.e., not be set with the objective of maintaining the market values of utilities at original cost book value. Please note that the second and third references in the preamble are to financial and economic principles that support an allowed return on equity that lies above what has been termed the "bare bones" cost of equity.

9. Références : (i) Pièce B-1, GI-4, document 1, page 66.
(ii) Pièce B-1, GI-4, document 1, page 67.
(iii) Pièce B-1, GI-4, document 1, page 68.
(iv) Dossier R-3630-2007, pièce B-4, GM-7, document 8, pages 24 et 25.

Préambule :

(i) *« The relationship between the equity risk premium, long-term government bond yields and corporate bond yield spreads for regulated companies was tested two ways. First, the allowed ROEs adopted for U.S. utilities were used to test the sensitivity of the utility cost of equity to changes both in long-term government bond yields and utility bond yield spreads. The average allowed ROEs can be viewed as a measure of the utility cost of equity as they represent the outcomes of multiple rate proceedings across multiple jurisdictions, which in turn reflect the application of various cost of equity tests by parties representing both the utility and ratepayers. »*

Quarterly allowed ROEs from 1995 (the year the initial automatic adjustment mechanism was applied in Canada by the BCUC) through 2009 were regressed against long-term Treasury bond yields and the spread between A rated utility and Treasury bond yields. »
(ii) *« The relationship between the cost of equity, long-term government bond yields and corporate bond/government bond yield spreads was also tested, as discussed in Chapter VI.B.4., using the discounted cash flow approach applied consistently over time to the benchmark U.S. distribution utility sample. »*

(iii) *« The two analyses together support the conclusions that:*

1. The sensitivity of the ROE to changes in long-term government bond yields is materially lower than the 75% factor in the original formula;
2. Although the two analyses produce different estimates of the sensitivity, the ROE is positively related to the change in utility/government bond yield spreads.

Based on the results of the above analyses, I recommend that the Régie's automatic adjustment formula be revised as follows:

1. Reduce the relationship between the forecast long-term Government of Canada bond yields and the benchmark ROE from 75% to 50%; and
2. Add a second explanatory variable, corporate bond yield spreads, to the original formula with the same 50% sliding scale factor.

The resulting adjusted formula can be expressed as:
ROE_{New} = Initial ROE + 50% X (Change in Forecast GOC Bond Yield)

+ 50% X (Change in Corporate Bond Yield Spread) »

(iv) *« La force de convergence vers la moyenne, connue sous le nom de vitesse d'ajustement du processus de retour à la moyenne, est de 0,25 et correspond à un moins le facteur d'élasticité déterminé par la Régie. Plus la vitesse d'ajustement est élevée, plus rapidement se fait la convergence, avec une convergence immédiate si la vitesse est fixée à un, et aucune convergence si la vitesse est fixée à zéro. Implicitement, le taux sans risque modifié utilisé par la Régie incorpore donc un contrôle qui l'empêche de trop s'éloigner du taux 30 ans espéré en 1999.*

Le parallèle avec la littérature sur la modélisation des taux d'intérêt fait ressortir deux points. Premièrement, la Régie a (indirectement) choisi une vitesse d'ajustement légèrement supérieure (mais non statistiquement différente) à ce qui est mesuré dans les taux d'intérêt lors d'estimations d'un processus de retour vers la moyenne, où la vitesse est généralement entre 0 et 0,2. Par exemple, Chan, Karolyi, Longstaff et Sanders (1992, Tableau III) estime la vitesse d'ajustement à 0,18 pour le modèle de Vasicek (1977) dans le taux à court terme américain. Le choix d'un facteur d'élasticité de 0,75 de la Régie s'est fait sur la base de l'évidence sur la relation entre le taux sans risque et la prime de risque, évidence qui n'est pas contestée ici. Le choix de 0,75 de la Régie m'apparaît donc raisonnable.»

Demandes :

9.1 Existe-il des études empiriques dans la littérature qui justifieraient l'utilisation de la somme de 50 % des variations des écarts de rendements des obligations du gouvernement et 50 % des variations des écarts de rendements des obligations corporatives A comme variables explicatives de la variation de la prime de risque. Si oui, veuillez déposer les conclusions principales ainsi que vos références.

Réponse 9.1:

Ms. McShane is not aware of any empirical studies that have been published in the academic literature specific to utilities which support the coefficients proposed for purposes of an automatic ROE adjustment mechanism for Gazifère. The only study published in an academic journal of which Ms. McShane is aware is a study conducted using a similar approach (DCF) but with much older data and covering a much shorter period (1982-1984). Over that specific period, the analysis showed that the utility risk premium declined (increased) by 26 basis points when interest rates rose (declined) by 100 basis points and increased (declined) by 140 basis points for every one percentage point increase (decline) in utility bond spreads (Robert Harris, "Using Analysts' Growth Forecasts to Estimate Shareholder Required Rates of Return", *Financial Management*, Spring 1986).

Ms. McShane would note that the Ontario Energy Board, in its December 2009 *Report of the Board on the Cost of Capital for Ontario's Regulated Utilities*, after hearing submissions by multiple experts, concluded as follows:

> **"The formula also needs to be refined to reduce its sensitivity to changes in government bond yields due to monetary and fiscal conditions that do not reflect changes in the utility cost of equity. First, the Board views the determination of the LCBF [Long Canada bond forecast] adjustment factor to be an empirical exercise, and as such, based on the empirical analysis provided by participants in conjunction with the consultation, the Board is of the view that the LCBF adjustment factor should be set at 0.5. Second, based on the analysis provided by participants to the consultation, the Board concludes that there is a statistically significant relationship between corporate bond yields and the cost of equity, and that a corporate bond yield variable should be incorporated in the return on equity formula.**
>
> **The Board has determined that it will use a utility bond spread based on the difference between the Bloomberg Fair Value Canada 30-Year A-rated Utility Bond index yield and the long Canada bond yield and that the utility bond spread reflected will be subject to a 0.50 adjustment factor, consistent with the empirical analyses provided by participants to the consultation."**

9.2 Veuillez commenter sur la vitesse d'ajustement de la formule proposée en référence (iii) en comparaison à celle de l'étude de Vasicek mentionnée à la référence (iv).

Réponse 9.2:

It is Ms. McShane's understanding that the Vasicek reference (and the subsequent reference in Dossier R-3630-2007, pièce B-4, GM-7, document 8, pages 24 et 25 to the Chan, Karolyi, Longstaff and Sanders study which developed the 0.18 value) is to the tendency of short-term interest rates to revert to the mean. While Ms. McShane acknowledges that she has not researched this specific issue, she would note that the table in the Chan, Karolyi, Longstaff and Sanders study in which the 0.18 factor appears: (1) reports the results of various other models whose values of the same variable differ widely and (2) the t-statistic on the variable estimated using the Vasicek model is very low and the R^2 of the equation is 0.

Further, even if the speed of mean reversion of short-term interest rates could be established with some degree of accuracy, there is no basis for the extension of the same factor to the cost of equity.

9.3 Veuillez indiquer si vous avez fait le même genre de tests de sensibilité, tel que décrit aux références (i) et (ii), et ce pour les sociétés non réglementées. Si oui, veuillez les déposer et en expliquer les résultats.

Réponse 9.3:

Ms. McShane has not performed any comparable analyses for unregulated companies.

10. Référence : Pièce B-1, GI-4, document 1, page 10.

Préambule :

« Many analysts expressed support for a formulaic approach to determining ROEs because of the transparency, stability and predictability that this method provides. However, a number expressed the view that the ROE resulting from the formula was too low, and contend that they are much lower than regulated ROEs in the U.S. and U.K. While views ranged widely on this issue, some felt that the typically lower ROEs in Canada were not justified by the differences in risk for Canadian companies compared to FERC-regulated pipelines. Some parties suggested it was time for the Board to revisit the ROE Formula. »

Demande :

10.1 Êtes-vous en mesure de préciser les méthodes d'établissement du taux de rendement et les taux de rendements octroyés au Royaume Uni. Si oui, veuillez élaborer.

Réponse 10.1:

Ms. McShane's understanding of the manner in which the returns are set in the U.K. is that the regulated asset value is effectively a current cost valuation and the return allowed is an after-tax weighted average cost of capital expressed in real terms. The cost of equity is estimated using the Capital Asset Pricing Model.

11. Référence : Pièce B-1, GI-4, document 1, page 57.

Préambule :

«For the sample of U.S. distribution utilities used in the DCF test (as well as the DCF-based equity risk premium test), the average expected long-term growth rate, as estimated using analysts' forecasts, for the entire 1995-2009 period of analysis was 4.8%.»

Demande :

11.1 Veuillez identifier la source et les données détaillées permettant d'établir le résultat de 4,8%.

Réponse 11.1:

The 4.8% in the reference is the average long-term growth rate estimate for all companies in the benchmark sample across all months January 1995 through December 2009. The long-term growth estimates are obtained from I/B/E/S. The data is provided in GI-30, document 1.24.

12. Références : (i) Pièce B-1, GI-4, document 1, page 57.
(ii) Pièce B-1, GI-4, document 1, page 57.
(iii) Pièce B-1, GI-4, document 1.1, appendix D, page D-5.

Préambule :

(i) «The growth component of the DCF model is an estimate of what investors expect over the longer-term. For a regulated utility, whose growth prospects are tied to allowed returns, the estimate of growth expectations is subject to circularity because the analyst is, in some measure, attempting to project what returns the regulator will allow, and the extent to which the utilities will exceed or fall short of those returns. To mitigate that circularity, it is important to rely on a sample of proxies, rather than the subject company.»

(ii) *The three-stage model is based on the premise that investors expect the growth rate for the utilities to be equal to the analysts' forecasts (which are five year projections) for the first five years, but, in the longer-term to migrate to the expected long-run rate of nominal growth in the economy. The three-stage DCF model is fully described in Appendix D. »*

(iii) « *The three-stage model relies on the I/B/E/S consensus of analysts' earnings forecasts for the first five years (Stage 1), the average of the I/B/E/S and the forecast long-term growth in the economy for the next five years (Stage 2) and the long-term growth in the economy thereafter (Stage 3). The long-run (2011-2020) expected nominal rate of growth in GDP is 5.0% based on* *the consensus of economists' forecasts (published twice annually)* found in Blue Chip *Financial Forecasts*, December 1, 2009. »

Demandes :

12.1 Dans quelle mesure le fait de s'appuyer sur un échantillon de sociétés réglementées américaines résout-il le problème de circularité cité à la référence (i).

Réponse 12.1:

Circularity is most pronounced when the DCF test is applied to the subject company, because, in effect, the analyst must attempt to estimate what ROE the regulator will allow for the same utility for which the analyst is making the growth estimate. In that case, the expected growth rate can become a self-fulfilling prophecy. In the case of Gazifère, this concern is moot, because Gazifère is not publicly-traded, which means that a proxy group is required. When using a sample of companies, the circularity is mitigated because the growth estimates for those companies, while they will reflect expected regulatory decisions, they are exogenous to the company whose cost of capital is being estimated.

12.2 Dans quelle mesure le fait de prendre seulement un estimé de la croissance américaine cité aux références (ii) et (iii), pour estimer le facteur g, est-il valable pour établir le taux de rendement qu'un organisme de réglementation canadien devrait octroyer à une entreprise comme Gazifère.

Réponse 12.2:

The DCF cost of equity is a combination of dividend yield (which represents current income) and the expected growth in income to investors. The two components must be internally consistent. All other things equal, i.e., comparable risk, a higher dividend yield will be associated with a lower expected long-term growth rate. Individual publicly-traded utilities, be they Canadian or U.S., will have different combinations of dividend yield and growth expectations. It is the combination of the two which represents the total equity return that investors expect and that is a measurement of the return available from comparable risk investments.