

UNION GAS LIMITED

EXHIBIT LIST

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PREFILED EVIDENCE OF

MICHAEL BROEDERS, MANAGER FINANCIAL PLANNING AND FORECASTING

This evidence addresses Union’s cost of capital, capital structure, and financing plans. The cost of capital and capital structure approved by the Board for 2007 is as per the EB-2005-0520 Settlement Agreement, Appendix E, Schedule 3 (adjusted to reflect regulated services only and the 2007 Return on Equity (“ROE”) as determined at the time using the October 2006 Consensus Forecast). The 2010 and 2011 actual results are shown at Exhibit E6 and Exhibit E5 respectively. The forecast for 2012 bridge and 2013 test years are shown at Exhibit E4, and Exhibit E3, respectively. Table 1 summarizes the cost of capital shown in these exhibits.

Table 1
Cost of Capital Summary

Line No.	<u>\$millions</u>	Board Approved <u>2007</u> (a)	Actual <u>2010</u> (b)	Actual <u>2011</u> (c)	Forecast <u>2012</u> (d)	Forecast <u>2013</u> (e)
1	Long-term debt	154.4	147.3	142.5	143.7	146.9
2	Short-term debt	(0.5)	1.1	1.3	1.6	(1.5)
3	Preferred equity	5.0	2.7	3.1	2.9	3.1
4	Common equity	<u>100.6</u>	<u>109.7</u>	<u>104.5</u>	<u>107.4</u>	<u>143.4</u>
5	Total	<u>259.5</u>	<u>260.8</u>	<u>251.4</u>	<u>255.6</u>	<u>291.9</u>

The \$32.4 million increase in the 2013 cost of capital compared to the 2007 Board-approved cost is due to an increase in total rate base (\$37.3 million), a proposed change in capital structure (\$12.4

million¹), and a proposed change to the ROE (\$14.0 million²) which are offset by a lower average cost of debt (\$31.3 million). These changes are discussed in more detail below.

OVERVIEW OF CAPITAL STRUCTURE AND FORMULA RETURN ON EQUITY RECOMMENDATION

Union's investment in rate base is financed by a combination of short-term and long-term debt, preferred shares and common equity. The current Board-approved capital structure is based on a 36% common equity component. The remaining 64% is financed by short-term and long-term debt and preferred shares.

Union is proposing an increase to its common equity component to 40%. Increasing Union's current 36% common equity to 40% will provide a capital structure that is comparable to the capital structures of other regulated utilities with whom Union competes in the capital markets. This will allow Union to finance capital expenditures at favourable debt rates.

1 The pre-tax impact of the proposed capital structure change is \$17.3 million. It is calculated using the 2013 rate base multiplied by the 4% change in equity multiplied by the difference between the pre-tax equity rate and the short-term interest rate of 1.31% ($\$3,741,542,000 \times 4\% \times (9.58\% / (1 - 0.255) - 1.31\%)$)

2 The pre-tax impact of the proposed ROE change is \$19.0 million. It is calculated using the 2013 rate base multiplied by the 2007 equity percentage and the change in ROE and grossed up by the 2013 tax rate ($\$3,741,542,000 \times 36\% \times 1.04\% / (1 - 25.5\%)$)

Concurrent with the proposal to increase its common equity component, Union is requesting the use of the Board's current ROE formula to establish an appropriate allowed ROE. Please refer to the expert testimony of Mr. Steven Fetter and Mr. James Vander Weide, filed at Exhibit E2 and Exhibit F2 respectively. Mr. Fetter's testimony supports an increase to Union's common equity while Mr. Vander Weide supports Union applying the parameters of the Board's ROE formula in conjunction with the common equity increase.

Union's proposed capital structure for 2013 is compared to the most recently Board-approved capital structure in Table 2. The proposed capital structure which includes a 40% common equity component in 2013 and 9.58% ROE recognizes Union's business and financial risks and permits Union to finance the Company's investment needs.

Table 2
Comparison of Board-Approved and Proposed Capital Structure

Line No.		Board-Approved <u>2007</u>		Proposed <u>2013</u>	
		<u>\$ millions</u>	<u>%</u>	<u>\$ millions</u>	<u>%</u>
1	Long-term debt	2,016.8	61.66	2,258.0	60.35
2	Short-term debt	(28.9)	(0.89)	(115.3)	(3.08)
3	Preferred equity	105.5	3.23	102.2	2.73
4	Common Equity	<u>1,177.5</u>	<u>36.00</u>	<u>1,496.6</u>	<u>40.00</u>
5		<u>3,270.9</u>	<u>100.00</u>	<u>3,741.5</u>	<u>100.00</u>

The impact of the proposed 4% increase in common equity in 2013 is a \$17.3 million increase to the 2013 revenue requirement (please refer to footnote 1 on page 2).

Financial Risk

Union assesses financial risk principally by reference to the ability to finance future growth. In Union's view, the approved capital structure must allow the Company to raise capital in the market when it is needed under reasonable terms and conditions. Union's proposal to increase the common equity component to 40% provides financing capacity for Union's investment growth forecast for 2013.

Assessment of Business Risk

Business risks lead to variations in operating income. The risk is the probability that the return to the Company will fall short of the expected return. Union's earnings are impacted by business risks inherent in the natural gas industry and energy marketplace. Specifically, Union's earnings may be adversely impacted by warmer than normal weather; decreases in customer's consumption beyond the level forecast; general economic conditions; and, cost escalation.

The determination of the appropriate capital structure should take into account the variability of returns from one year to the next to provide sufficient financing flexibility.

Each of these factors is discussed below.

- a) Weather risk - Warmer than normal weather results in reduced delivered volumes and reduced operating income. As proposed in Mr. Paul Gardiner's evidence at Exhibit C1, Tab 5, the Company's normal weather forecast for the 2013 test year is based on a 20-year declining trend in heating degree days.

1
2 b) Consumption risk – Union’s earnings can be reduced as a result of large commercial and
3 industrial customers reducing natural gas consumption below the level built into the test year
4 forecast.

5
6 c) Lower interest rates – Changes in interest rates have two significant impacts on earnings. First, a
7 50 basis point (“bps”) drop in interest rates would reduce the ROE and therefore reduce available
8 earnings by \$5.0 million per year dropping the interest coverage ratio by approximately 0.03.

9
10 Secondly, a 50 bps drop in interest rates will increase pension and other post-employment benefits
11 costs by \$2.5 million per year reducing available earnings and dropping the interest coverage ratio
12 by approximately 0.01.

13
14 d) Cost escalation risk – In addition to increases in pension and benefits costs identified above, the
15 Company can experience potential increases in other costs that can have a significant impact on
16 earnings. These include but are not limited to bad debt expense, vehicle fuel, Company-used gas
17 and unaccounted for gas (“UFG”).

18
19 Accordingly, it is Union’s view that an increase in common equity from 36% to 40% is warranted and
20 necessary. This increase provides Union with the ability to finance capital expenditures needed to
21 serve customers at favourable debt costs.

FINANCING PLANS

This evidence summarizes Union's financing plans with respect to short-term debt, long-term debt, and preferred shares. Further details regarding Union's current cost of capital can be found in its 2011 Annual Report filed at Exhibit A3, Tab 2.

Short Term Debt

Union has a \$500 million credit facility which will expire in July 2012. It is anticipated that it will be replaced with a \$400 million credit facility. Short term borrowing levels fluctuate significantly during the year due to Union's need to fund construction activities; the timing of long-term debt issues and maturities; and, the seasonality of the Company's business. Peak borrowings are forecast to reach \$353.9 million in 2013. The additional short-term borrowing capacity over the peak borrowing forecast is necessary to compensate for fluctuations in gas commodity prices.

The average amount of the short-term debt in the utility capital structure for 2013 is the difference between the average utility rate base and the total of the common equity component, the preferred share component, and the long-term debt component. The difference between the short-term debt included in the utility capital structure and the Company's average short-term borrowings for the period is related to the financing of items that are not included in utility rate base, primarily construction work in process ("CWIP").

1 The cost of short-term debt used in the cost of capital calculation reflects the projected Canadian
2 Dealer Offered Rate (“CDOR”) which represents the 1-month bankers’ acceptances minus a spread
3 of 0.10% (based on historical experience), plus issue costs of 0.10%.

4
5 In the past the fixed portion of short-term debt representing arrangement, facility and agency fees
6 have been small and have been included within the short-term debt rate. The treatment in the past can
7 cause variations in the debt rate depending on the magnitude of costs as well as the associated short-
8 term debt level. These costs have grown and are now a larger proportion of the cost of short-term
9 debt. Beginning in 2013, Union is proposing to move the fixed program costs to “Other financing” as
10 shown on line 8 in Exhibit F3, Tab 2, Schedule 1. This change will result in the short-term debt rate
11 being more reflective of market conditions and will eliminate the impact the level of short-term debt
12 has on the short-term debt rate.

13
14 Exhibits E3 to E6, Tab 1, Schedule 4 show the cost of short-term debt for the years 2013, 2012, 2011
15 and 2010 respectively.

16
17 Long Term Debt

18 Union has a Medium Term Note (“MTN”) program under a shelf prospectus that allows it to issue up
19 to \$500.0 million of debentures with terms ranging from 1 to 31 years. The MTN program allows
20 Union to issue debt on a frequent basis to meet its financing needs. Debt can be issued with varying
21 terms to manage the maturity profile, such that significant refinancing risk in any one period can be
22 avoided while still prudently securing long-term financing for the long-lived assets of the Company.

1 The MTN program also provides the flexibility to stagger maturities such that frequent refinancing of
2 Union's long-term debt results in an embedded cost which reflects the average of market interest rates
3 across economic cycles. The current shelf prospectus will expire in October 2012 and Union expects
4 to file a new shelf prospectus, with similar terms, prior to expiration.

5
6 In June 2011, Union issued \$300.0 million of MTNs with a 30-year term and a coupon rate of 4.88%
7 (4.93% effective cost rate). Therefore, Union could issue an additional \$200.0 million under the
8 current shelf prospectus. The forecast reflects an additional issuance of \$125 million in the last
9 quarter of 2012 at a coupon rate of 3.85% (3.90% effective cost rate). There are no scheduled
10 redemptions of long-term debt between the date of filing and December 31, 2013. The next maturity
11 date of existing debt is February 24, 2014 for \$150 million. A listing of Union's outstanding long
12 term debt can be found at Exhibit E3, Tab 1, Schedule 2.

13
14 Union's embedded cost of long term debt is expected to decrease from 7.66% in 2007 to 6.50% in
15 2013.

16 Preferred Shares

17 The average embedded cost of preferred share capital for the 2013 test year is 3.05%. This is a
18 decrease from the 2007 Board-approved level of 4.74%.

19
20 Union has four preference share issues which are all redeemable at the option of the Company. The
21 dividend rate of the Class B, Series 10 Shares is floating at an annual rate equal to 80% of the prime
22 rate until December 31, 2013.

Formula Based Return on Equity

As noted above, Union is requesting the use of the Board's current ROE formula to establish an appropriate allowed ROE. In applying the formula, Union's 2013 cost of service forecast has been prepared using an ROE of 9.58%, which aligns with the ROE provided by the Board for electricity distributors with a May 1, 2011 effective date for rate changes. The ROE embedded in Union's rates effective January 1, 2013 will be in accordance with the current ROE formula reflecting the September 2012 actual and forecast bond yields. A 50 bps change in the ROE changes the revenue deficiency by approximately \$10.0 million. Please refer to the schedules at Exhibit F3, Tab 1 which summarize Union's ROE and revenue deficiency for 2013.

DEBT RATINGS

Union considers it prudent to plan for an "A" debt rating. This rating provides a safety net in the event of a rating downgrade and helps Union achieve the lowest risk adjusted cost of debt. The debt ratings of Union's capital instruments by Standard & Poor's and DBRS are shown below. Copies of these reports can be found at Exhibit A3, Tab 6. The Standard & Poor's debenture ratings are a Global Scale Rating while the commercial paper and preference share ratings are National Scale Ratings.

	<u>Standard & Poor's</u>	<u>Dominion Bond Rating Service</u>
Commercial paper	A – 1 (low)	R – 1 (Low)
Debentures	BBB+	A
Preference shares	P – 2 (low)	Pfd – 2

1

2 The S&P debenture rating reflects the consolidated credit profile of Spectra Energy.

3

I. INTRODUCTION AND PURPOSE

Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.

A. My name is Steven M. Fetter. I am President of Regulation UnFettered. My business address is P.O Box 280, Nordland, Washington 98358.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. I have been asked by Union Gas Limited ("Union Gas" or "Company") to use my experience as a state utility regulator and head of utility ratings at a major rating agency, followed by time as an energy consultant advising and assisting utilities, commissions, and consumer advocates, to recommend the appropriate equity thickness for the Company within this rate proceeding before the Ontario Energy Board ("OEB" or "Board"). As part of my direct testimony, I will focus on the manner in which credit rating agencies assess equity thickness within their financial analysis underlying their assignment of credit ratings.

I conclude that, with OEB support for an enhanced equity thickness within the range of 40 to 42%, Union Gas' financial profile would improve, ultimately benefiting its customers through the Company's enhanced ability to attract capital from investors when needed and upon reasonable terms.

II. BACKGROUND

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

1 **A.** I am President of Regulation UnFettered, a utility advisory firm I started in April 2002.
2 Prior to that, I was employed by Fitch, Inc. ("Fitch"), a credit rating agency based in
3 New York and London. Prior to that, I served as Chairman of the Michigan Public
4 Service Commission ("Michigan PSC"). Earlier I served as Majority General Counsel
5 to the Michigan State Senate and Assistant Legal Counsel to Michigan Governor
6 William Milliken, and as Acting Deputy Under Secretary of Labor and appellate
7 litigation attorney at the National Labor Relations Board in Washington, D.C.

8
9 **Q. WHAT IS YOUR EDUCATIONAL BACKGROUND?**

10 **A.** I graduated with high honors from the University of Michigan with a Bachelor of Arts
11 degree in Communications in 1974. I graduated from the University of Michigan Law
12 School with a Juris Doctor degree in 1979.

13
14 **Q. PLEASE DESCRIBE YOUR SERVICE ON THE MICHIGAN PUBLIC SERVICE**
15 **COMMISSION.**

16 **A.** I was appointed as a Commissioner to the three-member Michigan PSC in
17 October 1987 by Democratic Governor James Blanchard. In January 1991, I
18 was promoted to Chairman by incoming Republican Governor John Engler, who
19 reappointed me in July 1993. During my tenure as Chairman, timeliness of
20 commission processes was a major focus and my colleagues and I achieved the
21 goal of eliminating the agency's case backlog for the first time in 23 years.

1 **Q. PLEASE BRIEFLY DESCRIBE YOUR ROLE AS PRESIDENT OF**
2 **REGULATION UNFETTERED.**

3 A. I formed a utility advisory firm to use my financial, regulatory, legislative, and
4 legal expertise to aid the deliberations of regulators, legislative bodies, and the
5 courts, and to assist them in evaluating regulatory issues. Since April 2002, I
6 have participated as an expert witness in over 85 cases related to utilities, most
7 of the time testifying as to credit rating issues and regulatory climate (see
8 Appendix A). My clients include investor-owned and municipal electricity, natural
9 gas and water utilities, state public utility commissions and consumer advocates,
10 non-utility energy suppliers, international financial services and consulting firms,
11 and investors.

12
13 **Q. WHAT WAS YOUR ROLE DURING YOUR EMPLOYMENT WITH FITCH?**

14 A. I was Group Head and Managing Director of the Global Power Group within
15 Fitch. In that role, I served as group manager of the combined 18-person New
16 York and Chicago utility team. I was originally hired to interpret the impact of
17 regulatory, legislative, and political developments on utility credit ratings, a
18 responsibility I continued to have throughout my tenure at the rating agency. In
19 April 2002, I left Fitch to start Regulation UnFettered.

20
21 **Q. HOW LONG WERE YOU EMPLOYED BY FITCH?**

1 **A.** I was employed by Fitch from October 1993 until April 2002. In addition, Fitch
2 retained me as a consultant for a period of approximately six months shortly after
3 I resigned.

4
5 **Q. HOW DOES YOUR EXPERIENCE RELATE TO YOUR TESTIMONY IN THIS**
6 **PROCEEDING?**

7 **A.** My experience as Chairman and Commissioner on the Michigan PSC and my
8 subsequent professional experience analyzing the electricity and natural gas
9 sectors – in jurisdictions involved in restructuring activity as well as those still
10 following a traditional regulated path – have given me solid insight into the
11 importance of a regulator’s role in setting rates and also in determining
12 appropriate terms and conditions of service for regulated utilities.

13 These are among the factors that enter into the process of utility credit analysis
14 and formulation of individual company credit ratings. It is undeniable that a
15 utility’s credit ratings significantly affect the ability of a utility to raise capital on a
16 timely basis and upon reasonable terms. It is also crucial that a regulated utility
17 be in a position to raise capital in all phases of its business cycle and whatever
18 the circumstances within the financial markets.

19
20 **Q. HAVE YOU PREVIOUSLY GIVEN TESTIMONY BEFORE REGULATORY AND**
21 **LEGISLATIVE BODIES?**

22 **A.** Since 1990, I have testified on numerous occasions before the U.S. Senate, the
23 U.S. House of Representatives, the Federal Energy Regulatory Commission

1 ("FERC"), federal district and bankruptcy courts, and various state and provincial
2 legislative, judicial, and/or regulatory bodies on the subjects of credit risk within
3 the utility sector, electricity and natural gas utility restructuring, fuel and other
4 energy cost adjustment mechanisms, construction work in progress and other
5 interim rate recovery structures, utility securitization bonds, and nuclear energy. I
6 recently testified before the Alberta Utilities Commission on behalf of AltaLink,
7 L.P. in its General Tariff Application 2011-13. Also, during my tenure at Fitch, I
8 served on a team that provided strategic advice to Ontario Hydro prior to its
9 restructuring in 1999.

10 My full educational and professional background (including a list of prior
11 testimony) is presented in Union Gas Exhibit SMF-1.

13 III. DISCUSSION

14
15 **Q. YOU MENTION THE IMPORTANCE OF CREDIT RATINGS TO UNION GAS.**
16 **CAN YOU PROVIDE AN OVERVIEW OF THE CREDIT RATING PROCESS?**

17 A. Yes. Credit ratings reflect a credit rating agency's independent judgment of the
18 general creditworthiness of an obligor or the creditworthiness of a specific debt
19 instrument. While credit ratings are important to both debt and equity investors for
20 a variety of reasons, their most important purpose is to communicate to investors
21 the financial strength of a company or the underlying credit quality of a particular
22 debt security issued by that company. Credit rating determinations are made
23 through a committee process involving individuals with knowledge of a company,
24 its industry, and its regulatory environment. Corporate rating designations of S&P
25 and Fitch basically have 'AA', 'A' and 'BBB' category ratings within the investment-

grade ratings sphere, with 'BBB-' as the lowest investment-grade rating and 'BB+' as the highest non-investment-grade rating. DBRS utilizes similar designations, but substitutes "high" / "low" in place of "+" or "-". Comparable rating designations of Moody's at the investment-grade dividing line are 'Baa3' and 'Ba1', respectively.

Corporate credit ratings analysis considers both qualitative and quantitative factors to assess the financial and business risks of fixed-income issuers. A credit rating is an indication of an issuer's ability to service its debt, both principal and interest, on a timely basis. It also at times incorporates some consideration of the ultimate recovery of investment in case of default or insolvency. Ratings can also be used by contractual counterparties to gauge both the short-term and longer-term health and viability of a company. Credit ratings are very important to institutional investors because rating levels often dictate the types of investments that are appropriate and/or permissible for a specific investor.

Q. CAN YOU PROVIDE A BRIEF DISCUSSION ON WHY CREDIT RATINGS ARE IMPORTANT FOR REGULATED UTILITIES AND THEIR RATEPAYERS?

A. Yes. It is a well-established fact that a utility's credit ratings have a significant impact as to whether that utility will be able to raise capital on a timely basis and upon reasonable terms. As respected economist Charles F. Phillips stated in his treatise on utility regulation:

Bond ratings are important for at least four reasons: (1) they are used by investors in determining the quality of debt investment; (2) they are used in determining the breadth of the market, since some large institutional investors are prohibited from investing in the lower grades; (3) **they determine, in part, the cost of new debt, since both the interest charges on new debt and the degree of difficulty in marketing new issues tend to rise as the rating decreases**; and (4) they have an indirect bearing on the status of a utility's stock and on its acceptance in the market.¹ [Emphasis supplied]

¹ Phillips, Charles F., Jr., The Regulation of Public Utilities, Arlington, Virginia: Public Utilities Reports,

1 Thus, a utility with strong credit ratings is not only able to access the capital
2 markets on a timely basis at reasonable rates – especially during periods of
3 economic turmoil, it also is able to share the benefit from those attractive interest rate
4 levels with ratepayers since cost of capital gets factored into utility rates.

5 Conversely, the lower a regulated utility's credit rating, the more the utility will have to
6 pay to raise funds from debt and equity investors to carry out its capital-intensive
7 operations. In turn, the ratemaking process factors the cost of capital for both debt
8 and equity into the rates that consumers are required to pay. This is especially true
9 for a utility like Union Gas, with a large customer base that includes manufacturing
10 companies whose natural gas usage has been affected by the current economic
11 downturn.

12
13 **Q. PLEASE DESCRIBE THE QUALITATIVE FACTORS USED BY THE RATING**
14 **AGENCIES.**

15 A. The most important qualitative factors include regulation, management and
16 business strategy, and, for integrated electricity and natural gas utilities, access to
17 energy, gas and fuel supply with recovery of associated costs.

18
19 **Q. WOULD YOU ALSO IDENTIFY THE KEY QUANTITATIVE MEASURES?**

20 A. Rating agencies use several financial measures within their utility financial
21 analysis. S&P currently highlights the following three ratios as its key indicators:
22 Funds from Operations / Debt [FFO/Debt]; Debt / Earnings Before Interest, Taxes,
23 Depreciation and Amortization [Debt/EBITDA]; and Debt / Capital.² Rating

Inc., 1993, at p. 250. See also Public Utilities Reports Guide: "Finance," Public Utilities Reports, Inc., 2004 at pp. 6-7 ("Generally, the higher the rating of the bond, the better the access to capital markets and the lower the interest to be paid.").

² S&P Research: "Criteria Methodology: Business Risk/Financial Risk Matrix Expanded," May 27, 2009.

1 agencies may adjust these key ratios to reflect imputed debt and interest-like fixed
2 charges related to operating leases and certain other off-balance sheet
3 obligations. While all three ratios are important, S&P has noted the agency's greater
4 emphasis on level of cash flow, as indicated by the FFO / Debt ratio: "Cash flow
5 analysis is the single most critical aspect of all credit rating decisions."³
6

7 **Q. YOU HAVE DESCRIBED REGULATION AS A KEY COMPONENT OF THE**
8 **CREDIT RATING PROCESS. PLEASE EXPLAIN YOUR THOUGHTS ON THE**
9 **IMPORTANCE OF REGULATION WITHIN THE CREDIT RATING PROCESS.**

10 A. Regulation is a critical factor in assessing the credit profile of a utility because a
11 provincial public utility commission determines rate levels (recoverable expenses
12 including depreciation and operations and maintenance, fuel cost recovery, and
13 return on investment) and the terms and conditions of service.

14 With the onset of utility restructuring in the early 1990's⁴, regulation has
15 become an even more important factor as the nature of a utility's responsibilities in
16 providing energy services to ratepayers has undergone dramatic change. This
17 situation affects utility investors' decisions because, before major investors will be
18 willing to put forward substantial sums of money, they will want to gain comfort that
19 regulators understand the economic requirements and the financial and

³ S&P Research: "A Closer Look at Ratings Methodology," November 13, 2006.

⁴ Natural gas competition in the U.S. was introduced in the early 1990's timeframe relatively smoothly as a result of regulatory policymaking at the Federal Energy Regulatory Commission – basically deregulating and separating the natural gas supply function from the pipelines' transmission function from the local distribution utilities' regulated distribution activities. On the electricity side, California in 1995 was the first U.S. state to separate electricity generation from the transmission and distribution functions of regulated electricity utilities, an ultimately flawed initiative due to a structure that froze retail rates while allowing wholesale rates to fluctuate, sometimes as a result of gaming by wholesale generators and marketers.

1 operational risks of a rapidly changing industry and that their decision-making will
2 be fair and will have a significant degree of predictability.

3 For these reasons, rating agencies look for the consistent application of
4 sound economic regulatory principles by utility regulators. If a regulatory body
5 were to encourage a company to make investments based upon an expectation of
6 the opportunity to earn a reasonable return, and then did not apply regulatory
7 principles in a manner consistent with such expectations, investor interest in
8 providing funds to such utility would decline, debt ratings would likely suffer, and
9 the utility's cost of capital would increase.

10
11 **Q. HAVE THE RECENT FINANCIAL AND OPERATIONAL CHALLENGES FACING**
12 **ALL UTILITY MANAGERMENTS INCREASED THE FINANCIAL COMMUNITY'S**
13 **FOCUS ON THE ACTIONS OF UTILITY REGULATORS?**

14 A. Yes, without a doubt. The recent turmoil in the financial markets has tested the
15 financial standing of the utility sector like never before. Liquidity, or access to cash
16 when needed, has always been a major issue for regulated utilities, but it has
17 leaped to the forefront of utility financial and operational concerns and has driven
18 structural decisions on the part of utility executives. As the Wall Street Journal
19 reported at the beginning of the financial crisis, "Disruptions in credit markets are
20 jolting the capital-hungry utility sector, forcing companies to delay new borrowing
21 or to come up with different – and often more costly – ways of raising cash."⁵

⁵ "Utilities' Plans Hit by Credit Markets," Wall Street Journal, October 1, 2008.

1 Thus, while “Regulation” has always garnered the attention of the financial
2 community, years ago it seemed to be a focus only during the days leading up to a
3 regulator’s rate case decision. This began to change around the time that Fitch
4 hired me in 1993 to serve in the role of regulatory analyst and assess regulatory,
5 legislative and political factors that could affect a utility’s financial strength. When
6 California announced its ultimately ill-fated restructuring plan in 1994, the entire
7 financial community took much greater notice of regulators and how they carried
8 out their responsibilities, not only with regard to rate-setting, but also the manner in
9 which they considered restructuring of the entire utility industry. And of course the
10 recent stresses within the credit markets I referred to earlier with their huge
11 financial repercussions have increased the stakes substantially beyond regulators
12 merely having to adjust their policies to deal with flawed restructuring initiatives.

13
14 **Q. DO THE RATING AGENCIES AGREE THAT UTILITY REGULATORS AND**
15 **THEIR DECISION-MAKING CONTINUE TO BE IMPORTANT WITHIN THE**
16 **CREDIT RATING PROCESS?**

17 A. Yes. S&P highlighted the critical role that regulators play in a November 26,
18 2008 report entitled “Key Credit Factors: Business and Financial Risks in the
19 Investor-Owned Utilities Industry”:

20 Regulation is the most critical aspect that underlies regulated
21 integrated utilities’ creditworthiness. Regulatory decisions can
22 profoundly affect financial performance. Our assessment of the
23 regulatory environments in which a utility operates is guided by
24 certain principles, most prominently consistency and predictability,
25 as well as efficiency and timeliness. For a regulatory process to be
26 considered supportive of credit quality, it must limit uncertainty in
27 the recovery of a utility’s investment.

1
2 **Q. IS IT REASONABLE TO EXPECT THAT THESE STATEMENTS ABOUT THE**
3 **IMPORTANCE OF REGULATION FIND SPECIFIC APPLICABILITY WITH**
4 **REGARD TO THE POLICIES OF THE OEB?**

5 A. Yes, very much so. Virtually every time a rating agency modifies or affirms a
6 utility credit rating, mention is made of the regulatory body within the relevant
7 jurisdiction and how its policies are factored into the rating determination. For
8 example, in a May 4, 2011 report issued on Union Gas, S&P stated:

9 Our view that regulatory protection is robust reflects the OEB's
10 power and the provisions in the undertakings agreement. The
11 regulator has what we believe are exceptional powers (from the
12 Minister of Energy) to ensure that Union Gas continues to operate
13 safely and efficiently, through a sound financial base. This is
14 particularly important in the event that the parent company faces
15 financial distress. The undertakings agreement between Spectra
16 Energy and the OEB governs the financial and business activity of
17 Union Gas to ensure operating sustainability. Some major
18 provisions include a minimum equity level requirement (which can
19 limit dividend payouts), quarterly capital structure forecasts, asset
20 sale restrictions, and financial penalties for noncompliance.⁶
21

22 With all of these protections, S&P goes on to note a refinement within its
23 traditional consolidated rating methodology:

24 We continue to equalize [Union Gas'] ratings with those of the
25 parent, which is consistent with our consolidated rating
26 methodology and our usual treatment of regulated subsidiaries.
27 Nevertheless, in our view, regulatory protection (through the OEB)
28 of Union Gas is such that the ratings on it might not remain limited
29 by the ratings on Spectra Energy in the event that the latter begins
30 to deteriorate – which is consistent with our rating methodology that
31 allows the separation of a utility and its parent in specific
32 circumstances. We base this on the premise that under financial
33 distress, Spectra Energy would have limited ability to withdraw cash

⁶ S&P Research: "Union Gas Ltd.," May 4, 2011.

1 or increase debt at Union Gas, protecting the utilities' financial risk
2 profile.
3

4 This distinction is important, because, contrary to S&P's usual treatment of a
5 regulated utility's ratings being tied to the ratings of its unregulated parent, the
6 rating agency acknowledges that there is a degree of insulation for Union Gas'
7 ratings vis-à-vis its parent, and also that financial support for Union Gas coming
8 out of this proceeding could benefit the regulated utility's ratings without
9 necessarily having any impact on the parent company's ratings.

10 Similarly, in January 2011, DBRS published its views on the importance of
11 regulatory support:

12 [T]he Company operates in a stable, supportive regulatory environment
13 that allows it to recover prudently incurred operating expenses and capital
14 expenditures in a timely manner and earn a reasonable return on its
15 investments.⁷
16
17

18 **Q. YOU DESCRIBED EARLIER THREE KEY QUANTITATIVE MEASURES USED**
19 **BY THE RATING AGENCIES. CAN YOU DISCUSS HOW S&P FRAMES THE**
20 **QUALITATIVE AND QUANTITATIVE FACTORS INTO A MATRIX TO ASSIST**
21 **ANALYSTS AND INVESTORS?**

22 **A.** Yes. As can be seen in the rating agency statements above, financial
23 performance continues to be a very important element in credit rating analysis.
24 Building upon the three indicative ratios, S&P has explained how it views the
25 interplay between quantitative and qualitative factors. As part of its utility credit
26 rating process, S&P arrives at a "Business Risk Profile" designation that it

⁷ DBRS Research: "Union Gas Limited," January 31, 2011.

considers in concert with its “Financial Risk Profile.” Financial Risk is assessed based upon indicative ratios for the three key credit measures described above; the weaker the Business Risk Profile designation, the stronger the financial ratios must be in order to support an investment-grade rating.⁸

Q. WHAT DOES S&P'S BUSINESS RISK PROFILE DESIGNATION REFLECT?

A. The Business Risk Profile designation reflects S&P's assessment of qualitative factors such as country risk, industry risk, competitive position, and profitability / peer group comparisons. In the past, S&P explained that assessment of regulation, markets, operations, competitiveness, and management enters into the determination of a Business Risk designation.⁹ Under the S&P Methodology, Business Risk Profiles are ranked as ‘Excellent’, ‘Strong’, ‘Satisfactory’, ‘Fair’, ‘Weak’, or ‘Vulnerable’. Similarly, under S&P's current framework, the Financial Risk designation captures risks related to accounting, financial governance and policies / risk tolerance, cash flow adequacy, capital structure / asset protection, and liquidity / short-term factors. Financial Risk Profiles are designated as ‘Minimal’, ‘Modest’, ‘Intermediate’, ‘Significant’, ‘Aggressive’, or ‘Highly Leveraged’, words that are used more for ranking than they are accurate descriptions of the strategies adopted by regulated utilities or the actions taken by their regulators.

Union Gas has been assigned an S&P Business Risk Profile of ‘Strong’, and a Financial Risk Profile of ‘Intermediate’. As shown in S&P's Table 1 printed

⁸ S&P Research: “Canadian Utilities: Strongest to Weakest,” May 9, 2011.

⁹ S&P Research: “U.S. Utilities Ratings Analysis Now Portrayed in the S&P Corporate Ratings Matrix,” November 30, 2007.

below, Union Gas' risk profile normally would equate to a credit rating of "A-". Because S&P does not assign ratings solely on this matrix, but uses it as a guide, most outcomes will fall within a range of one notch on either side of the indicated rating. Union Gas' current corporate credit rating of "BBB+" stands one notch below the "Strong" / "Intermediate" midpoint.¹⁰

Table 1

Business And Financial Risk Profile Matrix

Business Risk Profile	Financial Risk Profile					
	Minimal	Modest	Intermediate	Significant	Aggressive	Highly Leveraged
Excellent	AAA	AA	A	A-	BBB	--
Strong	AA	A	A-	BBB	BB	BB-
Satisfactory	A-	BBB+	BBB	BB+	BB-	B+
Fair	--	BBB-	BB+	BB	BB-	B
Weak	--	--	BB	BB-	B+	B-
Vulnerable	--	--	--	B+	B	CCC+

Q. WHY IS S&P'S METHODOLOGY MEANINGFUL TO YOU?

¹⁰ S&P Research: "Canadian Utilities: Strongest to Weakest," May 9, 2011.

1 A. S&P's methodology helps facilitate a general understanding of how a credit rating
2 agency carries out the process of formulating a credit rating and the factors that
3 go into such a determination.¹¹
4

5 **Q. CAN YOU DISCUSS HOW S&P'S METHODOLOGY CAN PROVIDE**
6 **GUIDANCE TO THE OEB IN THIS CASE?**

7 **A.** Yes I can. With my background as former head of the Fitch utility ratings
8 practice, I certainly appreciate that the credit rating process goes beyond the
9 mere matching up of ratios with rating ranges. However, the S&P Financial Risk
10 Indicative Ratios (Table 2 below) combined with the business and financial risk
11 profiles (in Table 1) are very helpful with regard to indicating rating trends. By
12 combining both quantitative factors (in the form of financial ratios) with qualitative
13 assessments (in the form of a business risk profile ranking), S&P is able to
14 provide useful tools to assess potential credit rating outcomes for individual utility
15 companies. Most important in this case, as discussed below, the S&P matrix
16 clearly illustrates that Union Gas' current equity thickness of 36% stands far
17 below S&P's guidelines for the utility sector, which covers a range from 55 to
18 65%.
19
20
21

Table 2

¹¹ I focus here on S&P's ratings methodology, as opposed to those at Moody's or Fitch, due to the greater transparency of S&P's ratings process owing to its explanation of the methodology and how it is implemented in published reports. See, for example, S&P Research: "U.S. Utilities Ratings Analysis Now Portrayed in the S&P Corporate Ratings Matrix." November 30, 2007 and S&P Research: "Canadian Utilities: Strongest to Weakest," May 9, 2011.

Financial Risk Indicative Ratios (Corporates)

	FFO/Debt (%)	Debt/EBITDA (x)	Debt/Capital (%)
Minimal	greater than 60	less than 1.5	less than 25
Modest	45-60	1.5-2	25-35
Intermediate	30-45	2-3	35-45
Significant	20-30	3-4	45-50
Aggressive	12-20	4-5	50-60
Highly Leveraged	less than 12	greater than 5	greater than 60

1

2 **Q. HOW DO YOU VIEW UNION GAS WITHIN THE CONTEXT OF THE S&P**
 3 **MATRIX?**

4 A. It is clear that Union Gas' equity thickness should be enhanced. As I discuss
 5 below, my consideration of recent equity thickness determinations by Canadian
 6 regulators leads me to set a floor of 40% for Union Gas' authorized equity level
 7 going forward, with expansion of that level to a range of 40 to 42% upon
 8 consideration of common equity levels recently authorized by US regulators and
 9 the utility financial guidelines publicly disseminated by S&P.

10

11 **Q. HOW DO YOU COME TO THAT RECOMMENDATION?**

1 A. Equity levels for regulated utilities within the United States are rarely set below
2 the 40% level. In Concentric Energy Advisors' research report¹² prepared for the
3 OEB in 2007 – *I note, prior to the global financial crisis* – they found that the
4 average authorized equity level for U.S. natural gas utilities was 48%, with a level
5 of 46.44% for companies comparable to Union Gas. I have supplemented that
6 data with a review of recent US regulatory decisions from January 1, 2010
7 through September 30, 2011 (See Appendix B) which shows 48 natural gas utility
8 decisions with authorized equity levels averaging 49.46% with a median level of
9 50%. In addition, a review of Canadian rate decisions since the time of the
10 Concentric Report also shows positive movement in authorized equity thickness.
11 For example, the OEB set a 40% equity thickness for Natural Resource Gas in
12 2010, stating that "NRG has presented no evidence that its risk profile is
13 significantly different from other utilities in Ontario."¹³ Also, on April 13, 2011, the
14 Alberta Utilities Commission ("AUC") issued a decision for ATCO Electric's
15 electric distribution activities with an equity level of 39%. Other recent AUC
16 decisions during 2009 and 2010 also show consistency with the 40 to 42% equity
17 thickness range I recommend here: AltaGas at 43%; Fortis Alberta, Enmax disco,
18 and Epcor disco, all at 41%; and ATCO Gas at 39%. Finally, the Manitoba Public
19 Utilities Board found that Centra Gas Manitoba, a gas distribution utility, was
20 entitled to a 30% equity level if a provincial guarantee was applicable, but a 40%
21 equity thickness if no such guarantee existed. These equity determinations lead
22 me to conclude that an authorized equity thickness for Union Gas in this

¹⁴ S&P Research: "Union Gas Ltd.," May 4, 2011.

¹⁴ S&P Research: "Union Gas Ltd.," May 4, 2011.

1 proceeding should be no lower than 40%, and could appropriately be set
2 anywhere within my recommended range of 40 to 42%.

3
4 **Q. WHAT UNDERLIES YOUR RECOMMENDATION THAT UNION GAS' EQUITY**
5 **THICKNESS BE AUTHORIZED WITHIN A RANGE OF 40 TO 42%?**

6 A. Having served as a utility commissioner for six years, I appreciate that there does
7 not exist within the ratemaking process such precision that there can only be one
8 right result. Ratemaking is more an art than a science. Regulators in carrying
9 out their ratemaking responsibilities are called upon to make difficult fairness
10 judgments concerning current and future economic conditions. They have to
11 strike a reasonable balance between the rates that ratepayers must pay, and the
12 rate levels necessary to attract ongoing funding from investors. With increasing
13 global competition for investment capital, I feel strongly that analysis beyond
14 Canadian regulatory decisions is appropriate, especially with the recent financial
15 crisis not discriminating by sovereign boundaries. If one were to look at S&P's
16 ratings matrix and the equity levels authorized for U.S. regulated utilities, one
17 would think that an equity level in the range of 48 to 52% might be appropriate.
18 My 40 to 42% recommended range attempts to strike a fair balance that factors
19 in recent Canadian and US regulatory decisions, along with a recognition of
20 S&P's point of view with regard to current norms for utility financial measures.
21 Taken together, that evidence supports enhancement of the Company's equity
22 thickness, thereby improving Union Gas' financial strength. That positive factor,
23 considered along with the current constructive regulatory climate in Ontario, will

1 have a major influence upon investors when they decide where to invest their
2 capital.

3
4 **Q. HAS S&P POINTED TO THE COMPANY'S CURRENT EQUITY THICKNESS**
5 **AS A NEGATIVE FACTOR?**

6 A. Yes. In its May 2011 report on Union Gas, S&P stated:

7 Influencing our view of Union Gas' significant financial risk profile
8 are higher balance-sheet leverage and generally weaker financial
9 metrics. The amount of equity on which the regulators allow Union
10 Gas to earn an equity rate of return drives the capital structure.¹⁴

11
12 While S&P goes on to say that the Company's "stable cash flow generation
13 allows it to withstand greater-than-normal financial leverage for its financial
14 profile," such a low equity component certainly influences the rating agencies and
15 debt and equity investors.

16
17 **IV. CONCLUSION**

18
19 **Q. DO YOU HAVE CONCLUDING THOUGHTS?**

20 A. Yes. The concept of utility regulation is to provide a surrogate for the competitive
21 market that is not present when a utility possesses monopoly or near-monopoly
22 status with regard to an essential good, such as utility service. With all the turmoil
23 that has occurred within the utility sector during the past decade, utilities and their
24 regulators should strive to maintain strong financial profiles, so as to be able to
25 withstand virtually all of the setbacks that have financially harmed certain

¹⁴ S&P Research: "Union Gas Ltd.," May 4, 2011.

1 companies within the utility sector during the recent past. On the other side of the
2 coin here, absence of regulatory support can cause very severe problems for a
3 utility with a weaker financial profile. Accordingly, my recommendation in this
4 testimony is that both Union Gas and the Board should take the steps necessary
5 to enhance the Company's financial strength, with a key first step being
6 authorization of an equity thickness level within the range of 40 to 42%, consistent
7 with current regulatory and economic circumstances.

8
9 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

10 **A.** Yes.

STEVEN M. FETTER

P.O. Box 280
Nordland, WA 98358
732-693-2349
RegUnF@gmail.com
www.RegUnF.com

Education University of Michigan Law School, J.D. 1979
Bar Memberships: U.S. Supreme Court, New York, Michigan
University of Michigan, A.B. (Communications) 1974

April 2002 – Present

President – REGULATION UnFETTERED – Nordland, WA / Henderson, NV

Founder of advisory firm providing regulatory, legislative, financial, legal and strategic planning advisory services for the energy, water and telecommunications sectors, including public utility commissions and consumer advocates; federal and state testimony; credit rating advisory services; negotiation, arbitration and mediation services; skills training in ethics, negotiation, and management efficiency.

Service on Boards of Directors of: CH Energy Group (Chairman, Governance and Nominating Committee; Member, Audit Committee; Previous Lead Independent Director and Chairman, Audit Committee and Compensation Committee), National Regulatory Research Institute, Keystone Energy Board, and Regulatory Information Technology Consortium; Member, Wall Street Utility Group; Participant, Keystone Center Dialogues on RTOs and on Financial Trading and Energy Markets.

October 1993 – April 2002

Group Head and Managing Director; Senior Director -- Global Power Group, Fitch IBCA Duff & Phelps -- New York / Chicago

Manager of 18-employee (\$15 million revenue) group responsible for credit research and rating of fixed income securities of U.S. and foreign electricity and natural gas companies and project finance; Member, Fitch Utility Securitization Team.

Led an effort to restructure the global power group that in three years time resulted in 75% new personnel and over 100% increase in revenues, transforming a group operating at a substantial deficit into a team-oriented profit center through a combination of revenue growth and expense reduction.

Achieved national recognition as a speaker and commentator evaluating the effects of regulatory developments on the financial condition of the utility sector and individual companies; Cited by Institutional Investor (9/97) as one of top utility analysts at rating agencies; Frequently quoted in national newspapers and trade publications including The New York Times, The Wall Street Journal, International Herald Tribune, Los Angeles Times, Atlanta Journal-Constitution, Forbes and Energy Daily; Featured speaker at conferences sponsored by Edison Electric Institute, Nuclear Energy Institute, American Gas Assn., Natural Gas Supply Assn., National Assn. of Regulatory Utility Commissioners (NARUC), Canadian Electricity Assn.; Frequent invitations to testify before U.S. Senate (on C-Span) and House of Representatives, and state legislatures and utility commissions.

Participant, Keystone Center Dialogue on Regional Transmission Organizations; Member, International Advisory Council, Eisenhower Fellowships; Author, "A Rating Agency's Perspective on Regulatory Reform," book chapter published by Public Utilities Reports, Summer 1995; Advisory Committee, Public Utilities Fortnightly.

March 1994 – April 2002

Consultant -- NYNEX -- New York, Ameritech -- Chicago, Weatherwise USA -- Pittsburgh

Provided testimony before the Federal Communications Commission and state public utility commissions; Formulated and taught specialized ethics and negotiation skills training program for employees in positions of a sensitive nature due to responsibilities involving interface with government officials, marketing, sales or purchasing; Developed amendments to NYNEX Code of Business Conduct.

October 1987 - October 1993

Chairman; Commissioner -- Michigan Public Service Commission -- Lansing

Administrator of \$15-million agency responsible for regulating Michigan's public utilities, telecommunications services, and intrastate trucking, and establishing an effective state energy policy; Appointed by Democratic Governor James Blanchard; Promoted to Chairman by Republican Governor John Engler (1991) and reappointed (1993).

Initiated case-handling guideline that eliminated agency backlog for first time in 23 years while reorganizing to downsize agency from 240 employees to 205 and eliminate top tier of management; MPSC received national recognition for fashioning incentive plans in all regulated industries based on performance, service quality, and infrastructure improvement.

Closely involved in formulation and passage of regulatory reform law (Michigan Telecommunications Act of 1991) that has served as a model for other states;

1 Rejuvenated dormant twelve-year effort and successfully lobbied the Michigan
2 Legislature to exempt the Commission from the Open Meetings Act, a controversial
3 step that shifted power from the career staff to the three commissioners.
4

5 Elected Chairman of the Board of the National Regulatory Research Institute (at
6 Ohio State University); Adjunct Professor of Legislation, American University's
7 Washington College of Law and Thomas M. Cooley Law School; Member of
8 NARUC Executive, Gas, and International Relations Committees, Steering
9 Committee of U.S. Environmental Protection Agency/State of Michigan Relative
10 Risk Analysis Project, and Federal Energy Regulatory Commission Task Force on
11 Natural Gas Deliverability; Eisenhower Exchange Fellow to Japan and NARUC
12 Fellow to the Kennedy School of Government; Ethics Lecturer for NARUC.
13

14 August 1985 - October 1987

15 **Acting Associate Deputy Under Secretary of Labor; Executive Assistant to**
16 **the Deputy Under Secretary -- U.S. Department of Labor -- Washington DC**
17

18 Member of three-person management team directing the activities of 60-employee
19 agency responsible for promoting use of labor-management cooperation programs.
20 Supervised a legal team in a study of the effects of U.S. labor laws on labor-
21 management cooperation that has received national recognition and been
22 frequently cited in law reviews (U.S. Labor Law and the Future of Labor-
23 Management Cooperation, w/S. Schlossberg, 1986).
24

25 January 1983 - August 1985

26 **Senate Majority General Counsel; Chief Republican Counsel -- Michigan**
27 **Senate -- Lansing**
28

29 Legal Advisor to the Majority Republican Caucus and Secretary of the Senate;
30 Created and directed 7-employee Office of Majority General Counsel; Counsel,
31 Senate Rules and Ethics Committees; Appointed to the Michigan Criminal Justice
32 Commission, Ann Arbor Human Rights Commission and Washtenaw County
33 Consumer Mediation Committee.
34

35 March 1982 - January 1983

36 **Assistant Legal Counsel -- Michigan Governor William Milliken -- Lansing**
37

38 Legal and Labor Advisor (member of collective bargaining team); Director,
39 Extradition and Clemency; Appointed to Michigan Supreme Court Sentencing
40 Guidelines Committee, Prison Overcrowding Project, Coordination of Law
41 Enforcement Services Task Force.
42

43 October 1979 - March 1982

44 **Appellate Litigation Attorney -- National Labor Relations Board -- Washington**
45 **DC**
46

1
2 **Other Significant Speeches and Publications**
3

4 The “A” Rating (Edison Electric Institute Perspectives, May/June 2009)
5

6 Perspective: Don’t Fence Me Out (Public Utilities Fortnightly, October 2004)
7

8 Climate Change and the Electric Power Sector: What Role for the Global Financial
9 Community (during Fourth Session of UN Framework Convention on Climate
10 Change Conference of Parties, Buenos Aires, Argentina, November 3,
11 1998)(unpublished)
12

13 Regulation UnFettered: The Fray By the Bay, Revisited (National Regulatory Research
14 Institute Quarterly Bulletin, December 1997)
15

16 The Feds Can Lead...By Getting Out of the Way (Public Utilities Fortnightly, June 1,
17 1996)
18

19 Ethical Considerations Within Utility Regulation, w/M. Cummins (National Regulatory
20 Research Institute Quarterly Bulletin, December 1993)
21

22 Legal Challenges to Employee Participation Programs (American Bar Association,
23 Atlanta, Georgia, August 1991) (unpublished)
24

25 Proprietary Information, Confidentiality, and Regulation's Continuing Information
26 Needs: A State Commissioner's Perspective (Washington Legal Foundation, July
27 1990)
28
29

**Prior Testimony
Steven M. Fetter
President
Regulation UnFettered**

Proceedings

- Union Electric Company d/b/a AmerenUE, Case No. EC-2002-1 Before the Missouri Public Service Commission – 2002 [rate case – credit quality issues]
- PSI Energy, Inc., Cause No. 42195 Before the Indiana Utility Regulatory Commission – 2002 [transfer of generation from unregulated affiliate to regulated utility]
- Entergy New Orleans, Inc., Docket No. ENO 2002 Rate Case Before the Council of the City of New Orleans – 2002 [hypothetical capital structure to allow for return to financial health]
- In re Pacific Gas and Electric Company, Case No. 01-30923DM Before the U.S. Bankruptcy Court for the Northern District of California -- 2002 & 2003 [credit quality issues with regard to the several restructuring plans]
- PSI Energy, Inc., Cause No. 42200 Before the Indiana Utility Regulatory Commission – 2003 [fuel and purchased power adjustment mechanism]
- PSI Energy, Inc., Cause No. 42359 Before the Indiana Utility Regulatory Commission – 2003 [rate case – credit quality issues]
- In re Pacific Gas and Electric Company, Proceeding No. I.02-04-026, Before the California Public Utilities Commission – 2003 [fairness of PG&E restructuring plan]
- Consolidated Edison Company of New York, Gas Case 03-G-1671 Before the New York Public Service Commission – 2003 [rate case – credit quality issues]
- Consolidated Edison Company of New York, Steam Case 03-S-1672 Before the New York Public Service Commission -- 2003 [rate case – credit quality issues]
- Nevada Power Company, Docket Nos. 03-10001/03-10002 Before the Nevada Public Utilities Commission – 2004 [rate case – credit quality issues]
- Sierra Pacific Power Company, Docket No. 03-12002 Before the Nevada Public Utilities Commission – 2004 [rate case – credit quality issues]

- Arizona Public Service Company, Docket No. E-01345A-03-0437 Before the Arizona Corporation Commission – 2004 [rate case – credit quality issues]
- Detroit Edison Company, Case No. U-13808 Before the Michigan Public Service Commission – 2004 [rate case – credit quality issues]
- In re Enron Corp. Enron Power Marketing, Inc. v. Nevada Power Company and Sierra Pacific Power Company, Case No. 01-16034 (02-2520) Before the U.S. Bankruptcy Court for the Southern District of New York – 2004 [negative financial impact from posting cash bond pending ultimate judgment]
- Consolidated Edison Company of New York, Electric Case 04-E-0572 Before the New York Public Service Commission – 2004 [rate case – credit quality issues]
- Georgia Power Company, Docket No. 18300-U Before the Georgia Public Service Commission – 2004 [rate case – credit quality issues]
- Laclede Gas Company Case (on behalf of AmerenUE), No. GR-99-315 Before the Missouri Public Service Commission – 2004 [depreciation methodology – treatment of net salvage]
- Nevada Power Company and Sierra Pacific Power Company v. Enron Power Marketing Inc., Docket No. EL04-1-000 Before the Federal Energy Regulatory Commission – 2004 [contract issues related to bankruptcy]
- Devon Power LLC, et al. (on behalf of Maine Public Utilities Commission, Vermont Department of Public Service, Maine Public Advocate, and Vermont Public Service Board), Docket Nos. ER03-563-000 and EL04-102-000 Before the Federal Energy Regulatory Commission – 2005 [difficulty of financing merchant generation in absence of contractual commitment]
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- Southwest Gas Corporation, Docket No. G-01551A-04-0876 Before the Arizona Corporation Commission – 2005 [rate case – credit quality issues; conservation revenue decoupling]
- Vectren Energy Delivery of Ohio, Inc., Case Nos. 04-571-GA-AIR and 04-794-GA-AAM Before the Public Utilities Commission of Ohio – 2005 [conservation revenue decoupling]
- Nevada Power Company and Sierra Pacific Power Company v. Enron Power Marketing Inc., Docket No. EL03-180-000 Before the Federal Energy Regulatory Commission – 2005 [contract issues related to bankruptcy]

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- Entergy New Orleans, Inc., Docket Nos. UD-01-4 & UD-03-1 Before the Council of the City of New Orleans – 2005 [rate case – credit quality issues]
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- Cinergy/Cincinnati Gas & Electric Company and Union Light, Heat and Power Company – Duke Energy Corporation, Merger Case No. 2005-00228 Before the Kentucky Public Service Commission – 2005 [merger approval]
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- In re Enron Corporation Securities Litigation, Docket No. MDL-1446 Before the U.S. District Court for the Southern District of Texas – 2006 [credit quality issues related to bankruptcy]

- Entergy Gulf States, Inc., Docket No. 32907 Before the Texas Public Utility Commission – 2006 [storm restoration expenses]
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- Technical Conference Docket No. 07-2-000 Before the Federal Energy Regulatory Commission – 2006 [Implementation of Energy Policy Act of 2005 & PUHCA reform]
- Taylor Energy Center, Docket No. 142601 Before the Florida Public Service Commission – 2007 [need for power application]
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- Entergy Gulf States, Inc., Docket No. 33687 Before the Texas Public Utility Commission – 2007 [transition to competition plan]
- Progress Energy Florida, Inc., Docket No. 060658 – EI Before the Florida Public Service Commission – 2007 [fuel expense refund petition]
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- Duke Energy Carolinas, Docket No. E-7, Sub 828 Before the North Carolina Utilities Commission – 2007 [rate case – credit quality issues]
- Oklahoma Gas & Electric Company (on behalf of OG&E Shareholders' Assn.), Case No. PUD 200700012 Before the Oklahoma Corporation Commission – 2007 [generation pre-approval & CWIP]
- Pacific Gas and Electric Company, Proceeding No. A. 07-05-003 Before the California Public Utilities Commission – 2007 [rebuttal of opposing ROE testimony for cost of capital in 2008]
- Entergy Louisiana, Docket No. U-30192 Before the Louisiana Public Service Commission – 2007 [credit quality issues -- CWIP on plant repowering]
- Public Service Company of New Mexico, Case No. 07-00077-UT Before the New Mexico Public Regulation Commission – 2007 [rate case – credit quality issues – fuel adjustment mechanism]
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- Entergy Texas Inc., Docket No. 34800 Before the Texas Public Utility Commission – 2008 [rate case – financial integrity issues]

- Indiana Michigan Power Company, Cause No. 43306 Before the Indiana Utility Regulatory Commission – 2008 [rate case -- tracking mechanisms]
- Entergy New Orleans, Inc., Docket No. UD-08-03 Before the Council of the City of New Orleans – 2008 [rate case – credit quality issues]
- Georgia Power Company, Docket No. 27800-U Before the Georgia Public Service Commission – 2008 [nuclear certification/CWIP]
- Central Hudson Gas & Electric Corporation, Case Nos. 08-E-0887 & 08-G-0888 Before the New York State Public Service Commission – 2008 [expense recovery issues]
- Oklahoma Corporation Commission v. American Electric Power Service Corporation, Docket No. EL08-80-000 Before the Federal Energy Regulatory Commission – 2008 [contract interpretation]
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- Mississippi Power Company, Docket No. 2009-UA-14 Before the Mississippi Public Service Commission – 2009 [IGCC certification/CWIP]
- Entergy Services, Inc., Docket No. ER-08-1056-002 Before the Federal Energy Regulatory Commission – 2009 [capital structure issues]
- New York State Electric & Gas Corporation and Rochester Gas & Electric Corporation, Case Nos. 09-E-0082, 09-G-0083, 09-E-0084 & 09-G-0085 Before the New York State Public Service Commission – 2009 [rate cases – financial integrity issues]
- Duke Energy Carolinas, Docket No. E-7, Sub 909 Before the North Carolina Utilities Commission – 2009 [rate case -- credit quality issues]
- Oklahoma Gas & Electric Company (on behalf of OG&E Shareholders' Assn.), Case No. PUD 2008-00398 Before the Oklahoma Corporation Commission – 2009 [rate case -- credit quality issues]
- Northern Indiana Public Service Co., Cause No. 43526 Before the Indiana Utility Regulatory Commission – 2009 [rate case – ring-fencing issues]
- Duke Energy Carolinas, Docket No. 2009-226-E Before the South Carolina Public Service Commission – 2009 [rate case -- credit quality issues]

- Peoples Gas Light and Coke Co./North Shore Gas Co., Docket 09-0167 & 09-0166 Before the Illinois Commerce Commission – 2009 [rate case – ROE and credit quality issues]
- Town of Edinburgh v. Indiana Municipal Power Agency, Cause No. 29D03-0608-PL-806 Before the Hamilton County (IN) Superior Court – 2010 [regulatory framework]
- Southwestern Electric Power Co., Docket No. 37364 Before the Texas Public Utility Commission – 2010 [rate case – financial integrity issues]
- Empire District Electric Co. Iatan 2 Arbitration – 2010 [contract interpretation]
- Portland General Electric Co., Docket No. UE 215 Before the Oregon Public Utility Commission – 2010 [rate case – fuel adjustment mechanism]
- Public Service Company of New Mexico, Case No. 10-00086-UT Before the New Mexico Public Regulation Commission – 2010 [rate case – future test year -- fuel adjustment mechanism]
- Delmarva Power & Light Co., Docket Nos. 09-414/09-276T Before the Delaware Public Service Commission – 2010 [rate case – ring fencing issues]
- Hawaiian Electric Company, Docket No. 2010-0080 Before the Hawaii Public Utilities Commission – 2010 [rate case -- financial integrity issues]
- Indiana Michigan Power Co., Case No. U-16180 Before the Michigan Public Service Commission – 2010 [rate case – tracking mechanisms]
- Georgia Power Company, Docket No. 31958 Before the Georgia Public Service Commission – 2010 [rate case – credit quality issues – support of settlement]
- Oklahoma Gas & Electric Company (on behalf of OG&E Shareholders' Assn.), Technical Conference Before the Oklahoma Corporation Commission – 2010 [possible rulemaking re pre-approval]
- Commonwealth Edison Company, Docket 10-0467 Before the Illinois Commerce Commission – 2011 [rate case – ROE and credit quality issues]
- AltaLink, L.P., General Tariff Application 2011-13 Before the Alberta Utilities Commission – 2011 [rate case – credit quality issues – CWIP]
- Georgia Power Company, Docket No. 29849 Before the Georgia Public Service Commission – 2011 [nuclear construction risk-sharing incentive mechanism]

- 1 ➤ Duke Energy Indiana, Cause Nos. 43114 IGCC 4S1 Before the Indiana Utility
- 2 Regulatory Commission – 2011 [consideration of sanctions related to IGCC plant
- 3 construction]
- 4

Appendix B

U.S. Natural Gas Utility	Date Decided	Common Equity %
Texas Gas Service Co.	14/12/2010	59.24
Madison Gas & Electric Co.	12/01/2011	58.06
Public Service Co. of Colorado	01/09/2011	56.00
North Shore Gas Co.	21/01/2010	56.00
Peoples Gas Light & Coke Co.	21/01/2010	56.00
CenterPoint Energy Res. (TX)	23/02/2010	55.60
CenterPoint Energy Res. (TX)	18/04/2011	55.44
Questar Gas Co.	08/04/2010	52.91
CenterPoint Energy Res. (MN)	11/01/2010	52.55
Northern States Power (MN)	06/12/2010	52.46
Yankee Gas Services Co.	29/06/2011	52.20
Pacific Gas and Electric Co.	13/05/2011	52.00
Black Hills Nebraska Gas	17/08/2010	52.00
Baltimore Gas & Electric Co.	06/12/2010	51.93
Wisconsin Public Service Corp.	13/01/2011	51.65
Public Service Electric Gas	18/06/2010	51.20
South Jersey Gas Co.	16/09/2010	51.20
Atlanta Gas Light Co.	03/11/2010	51.00
Source Gas Distribution (CO)	01/12/2010	50.48
SourceGas Distribution (WY)	23/12/2010	50.34
New England Gas Company	31/03/2011	50.17
Boston Gas Co.	02/11/2010	50.00
Colonial Gas Co.	02/11/2010	50.00
Avista Corp. (OR)	10/03/2011	50.00
SourceGas Distribution (NB)	09/03/2010	49.96
UNS Gas Inc.	01/04/2010	49.90
Atmos Energy Corp. (TX)	26/01/2010	48.91
Ameren Illinois (CIPS)	29/04/2010	48.67
Northwestern Energy	09/12/2010	48.00
Central Hudson Gas & Electric	16/06/2010	48.00
Consolidated Edison of NY	16/09/2010	48.00
New York State Electric & Gas	16/09/2010	48.00
Rochester Gas & Electric	16/09/2010	48.00
Atmos Energy Corp. (GA)	31/03/2010	47.70
MidAmerican Energy Co.	24/03/2010	47.08
Avista Corp. (WA)	19/11/2010	46.50
Chattanooga Gas Company	24/05/2010	46.06
Puget Sound Energy Inc.	02/04/2010	46.00
Delta Natural Gas Co.	21/10/2010	44.49
Sierra Pacific Power Co.	20/12/2010	44.11
Ameren Illinois (CILCO)	29/04/2010	43.61
Fitchburg Gas & Electric Light	01/08/2011	42.88
Columbia Gas of Virginia Inc.	17/12/2010	42.70
Consumers Energy Co.	17/05/2010	40.78
Michigan Consolidated Gas Co.	03/06/2010	38.78
Missouri Gas Energy	10/02/2010	38.66
		49.46 Average
		50.00 Median

UNION GAS LIMITED
Summary of Cost of Capital
Year Ending December 31, 2013

Line No.	Particulars	<u>Utility Capital Structure</u>		Cost Rate %	Requested Return (\$000's)
		<u>(\$000's)</u> (a)	<u>(%)</u> (b)		
1	Long-term debt	2,257,972	60.35	6.50%	146,868
2	Unfunded short-term debt	<u>(115,296)</u>	<u>(3.08)</u>	1.31%	<u>(1,510)</u>
3	Total debt	2,142,676	57.27		145,358
4	Preference shares	102,248	2.73	3.05%	3,117
5	Common equity	<u>1,496,617</u>	<u>40.00</u>	9.58%	<u>143,376</u>
6	Total rate base	<u><u>3,741,542</u></u>	<u><u>100.00</u></u>		<u><u>291,851</u></u>

UNION GAS LIMITED
Cost of Long-Term Debt Capital
Year Ending December 31, 2013

Line No.	Offering Date	Coupon Rate	Maturity Date	Principal Amount Offered (\$000's)	Premium Discount and Expenses (\$000's)	Net Capital Employed		Effective Cost Rate ⁽¹⁾	Total Amount Outstanding		Avg. Monthly Averages (\$000's)	Carrying Cost (\$000's)	Projected Average Embedded Cost Rates
						Total Amount (\$000's)	Per \$100 Principal (in Dollars)		at 12/31/12 (\$000's)	at 12/31/13 (\$000's)			
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
1	08/28/90	11.50	08/28/15	150,000	1,620	148,380	98.92	11.63	150,000	150,000	150,000	17,445	
2	11/06/92	9.70	11/06/17	125,000	1,500	123,500	98.80	9.83	125,000	125,000	125,000	12,288	
3	08/05/93	8.75	08/03/18	125,000	1,275	123,725	98.98	8.90	125,000	125,000	125,000	11,125	
4	10/19/93	8.65	10/19/18	75,000	908	74,092	98.79	8.79	75,000	75,000	75,000	6,593	
5	02/24/93	7.90	02/24/14	150,000	1,869	148,131	98.75	8.04	150,000	150,000	150,000	12,060	
6	11/10/95	8.65	11/10/25	125,000	1,612	123,388	98.71	8.79	125,000	125,000	125,000	10,988	
7	09/21/05	4.64	06/30/16	200,000	1,100	198,900	99.45	4.70	200,000	200,000	200,000	9,400	
8	09/11/06	5.46	09/11/36	165,000	898	164,102	99.46	5.51	165,000	165,000	165,000	9,092	
9	11/23/06	4.85	04/25/22	125,000	854	124,146	99.32	4.91	125,000	125,000	125,000	6,138	
10	04/28/08	5.35	04/27/18	200,000	1,060	198,940	99.47	5.42	200,000	200,000	200,000	10,840	
11	09/02/08	6.05	09/02/38	300,000	2,076	297,924	99.31	6.10	300,000	300,000	300,000	18,300	
12	07/23/10	5.20	07/23/40	250,000	2,455	247,545	99.02	5.27	250,000	250,000	250,000	13,175	
13	06/21/11	4.88	06/21/41	300,000	2,171	297,829	99.28	4.93	300,000	300,000	300,000	14,790	
14	10/01/12	3.85	10/01/22	125,000	515	124,485	99.59	3.90	125,000	125,000	125,000	4,875	/c
15									<u>2,415,000</u>	<u>2,415,000</u>	<u>2,415,000</u>	<u>157,109</u>	<u>6.51%</u>
16	Regulated Portion										<u>2,257,972</u>	<u>146,868</u>	<u>6.50%</u>

Note:

(1) Computation of effective cost rate takes into account sinking fund requirements and the amortization of any premium/discount and issue expenses, on the average life of each issue.

UNION GAS LIMITED
Cost of Preference Share Capital
Year Ending December 31, 2013

Line No.	Particulars (\$000's)	Class A Shares			Class B Shares	Total	Regulated Portion
		5-1/2% Cumulative Series A	6% Cumulative Series B	5% Cumulative Series C	Floating Rate Cumulative Redeemable Convertible Series 10		
		(a)	(b)	(c)	(d)	(e)	(f)
1	Date of issuance	02/16/59	07/25/60	07/28/64	01/01/09		
	Number of shares issued (quantity)						
2	Par \$50	170,000	90,000	140,000			
3	Par \$25				4,000,000		
4	Dividend rate (\$/year)	2.75	3.00	2.50	0.60		
5	Net proceeds of issue	8,225	4,878	6,922	100,000		
6	Cost rate of net proceeds	5.50%	6.00%	5.00%	2.40%		
	Amount outstanding at:						
7	12/31/12	2,384	4,500	2,475	100,000	109,359	
8	12/31/13	2,384	4,500	2,475	100,000	109,359	
9	Average of monthly averages	2,384	4,500	2,475	100,000	109,359	<u>102,248</u>
10	Year cost	131	270	124	2,400	2,925	
11	Profit on share redemption					-	
12	Preference dividend tax credit					(409)	
13	Net cost					<u>3,334</u>	<u>3,117</u>
14	Average embedded cost rate					<u>3.05%</u>	<u>3.05%</u>

UNION GAS LIMITED
 Combined Weighted Average
 Cost of Short-Term Debt
Year Ending December 31

Line No.	Particulars	Forecast 2013
1	Cost of borrowings other than bank loans:	
2	Canadian Dealer Offered Rate (CDOR)	1.31%
3	Add:	
4	Spread	-0.10%
5	Costs	<u>0.10%</u>
6	Total cost	<u><u>1.31%</u></u>

UNION GAS LIMITED
Summary of Cost of Capital
Year Ending December 31, 2012

Line No.	Particulars	<u>Utility Capital Structure</u>		Cost Rate %	Requested Return (\$000's)
		<u>(\$000's)</u> (a)	<u>(%)</u> (b)		
1	Long-term debt	2,171,790	58.97	6.62%	143,680
2	Unfunded short-term debt	<u>82,673</u>	<u>2.24</u>	2.03%	<u>1,679</u>
3	Total debt	2,254,463	61.22		145,359
4	Preference shares	102,548	2.78	2.82%	2,892
5	Common equity	<u>1,325,819</u>	<u>36.00</u>	8.10%	<u>107,391</u>
6	Total rate base	<u><u>3,682,830</u></u>	<u><u>100.00</u></u>		<u><u>255,643</u></u>

UNION GAS LIMITED
Cost of Long-Term Debt Capital
Year Ending December 31, 2012

Line No.	Offering Date	Coupon Rate	Maturity Date	Principal Amount Offered (\$000's)	Premium Discount and Expenses (\$000's)	Net Capital Employed		Effective Cost Rate ⁽¹⁾	Total Amount Outstanding		Avg. Monthly Averages (\$000's)	Carrying Cost (\$000's)	Projected Average Embedded Cost Rates
						Total Amount (\$000's)	Per \$100 Principal (in Dollars)		at 12/31/11 (\$000's)	at 12/31/12 (\$000's)			
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
1	08/28/90	11.50	08/28/15	150,000	1,620	148,380	98.92	11.63	150,000	150,000	150,000	17,445	
2	11/06/92	9.70	11/06/17	125,000	1,500	123,500	98.80	9.83	125,000	125,000	125,000	12,288	
3	08/05/93	8.75	08/03/18	125,000	1,275	123,725	98.98	8.90	125,000	125,000	125,000	11,125	
4	10/19/93	8.65	10/19/18	75,000	908	74,092	98.79	8.79	75,000	75,000	75,000	6,593	
5	02/24/93	7.90	02/24/14	150,000	1,869	148,131	98.75	8.04	150,000	150,000	150,000	12,060	
6	11/10/95	8.65	11/10/25	125,000	1,612	123,388	98.71	8.79	125,000	125,000	125,000	10,988	
7	09/21/05	4.64	06/30/16	200,000	1,100	198,900	99.45	4.70	200,000	200,000	200,000	9,400	
8	09/11/06	5.46	09/11/36	165,000	898	164,102	99.46	5.51	165,000	165,000	165,000	9,092	
9	11/23/06	4.85	04/25/22	125,000	854	124,146	99.32	4.91	125,000	125,000	125,000	6,138	
10	04/28/08	5.35	04/27/18	200,000	1,060	198,940	99.47	5.42	200,000	200,000	200,000	10,840	
11	09/02/08	6.05	09/02/38	300,000	2,076	297,924	99.31	6.10	300,000	300,000	300,000	18,300	
12	07/23/10	5.20	07/23/40	250,000	2,455	247,545	99.02	5.27	250,000	250,000	250,000	13,175	
13	06/21/11	4.88	06/21/41	300,000	2,171	297,829	99.28	4.93	300,000	300,000	300,000	14,790	
14	10/01/12	3.85	10/01/22	125,000	515	124,485	99.59	3.90	-	125,000	26,042	1,016	/c
15									<u>2,290,000</u>	<u>2,415,000</u>	<u>2,316,042</u>	<u>153,250</u>	<u>6.62%</u>
16	Regulated Portion										<u>2,171,790</u>	<u>143,680</u>	<u>6.62%</u>

Note:

(1) Computation of effective cost rate takes into account sinking fund requirements and the amortization of any premium/discount and issue expenses, on the average life of each issue.

UNION GAS LIMITED
Cost of Preference Share Capital
Year Ending December 31, 2012

Line No.	Particulars (\$000's)	Class A Shares			Class B Shares	Total	Regulated Portion
		5-1/2% Cumulative Series A	6% Cumulative Series B	5% Cumulative Series C	Floating Rate Cumulative Redeemable Convertible Series 10		
		(a)	(b)	(c)	(d)	(e)	(f)
1	Date of issuance	02/16/59	07/25/60	07/28/64	01/01/09		
	Number of shares issued (quantity)						
2	Par \$50	170,000	90,000	140,000			
3	Par \$25				4,000,000		
4	Dividend rate (\$/year)	2.75	3.00	2.50	0.60		
5	Net proceeds of issue	8,225	4,878	6,922	100,000		
6	Cost rate of net proceeds	5.50%	6.00%	5.00%	2.20%		
	Amount outstanding at:						
7	12/31/12	2,384	4,500	2,475	100,000	109,359	
8	12/31/13	2,384	4,500	2,475	100,000	109,359	
9	Average of monthly averages	2,384	4,500	2,475	100,000	109,359	<u>102,548</u>
10	Year cost	131	270	124	2,200	2,725	
11	Profit on share redemption					-	
12	Preference dividend tax credit					(360)	
13	Net cost					<u>3,085</u>	<u>2,892</u>
14	Average embedded cost rate					<u>2.82%</u>	<u>2.82%</u>

UNION GAS LIMITED
 Combined Weighted Average
 Cost of Short-Term Debt
Year Ending December 31

<u>Line No.</u>	<u>Particulars</u>	<u>Forecast 2012</u>
1	Cost of borrowings other than bank loans:	
2	Canadian Dealer Offered Rate (CDOR)	1.04%
3	Add:	
4	Spread	-0.10%
5	Costs	<u>1.09%</u>
6	Total cost	<u><u>2.03%</u></u>

Updated: 2012-03-27

EB-2011-0210

Exhibit E5

Tab 1

Schedule 1

UNION GAS LIMITED
Summary of Cost of Capital
Year Ending December 31, 2011

Line No.	Particulars	<u>Utility Capital Structure</u>		Cost Rate %	Requested Return (\$000's)	
		<u>(\$000's)</u> (a)	<u>(%)</u> (b)			
1	Long-term debt	2,109,129	58.86	6.76%	142,509	/u
2	Unfunded short-term debt	<u>81,473</u>	<u>2.27</u>	1.61%	<u>1,312</u>	/u
3	Total debt	2,190,601	61.13		143,821	/u
4	Preference shares	102,683	2.87	2.99%	3,075	/u
5	Common equity	<u>1,289,973</u>	<u>36.00</u>	8.10%	<u>104,488</u>	/u
6	Total rate base	<u><u>3,583,258</u></u>	<u><u>100.00</u></u>		<u><u>251,384</u></u>	/u

UNION GAS LIMITED
Cost of Long-Term Debt Capital
Year Ending December 31, 2011

Line No.	Offering Date	Coupon Rate	Maturity Date	Principal Amount Offered (\$000's)	Premium Discount and Expenses (\$000's)	Net Capital Employed		Effective Cost Rate ⁽¹⁾	Total Amount Outstanding		Avg. Monthly Averages (\$000's)	Carrying Cost (\$000's)	Projected Average Embedded Cost Rates
						Total Amount (\$000's)	Per \$100 Principal Amount (in Dollars)		at 12/31/10 (\$000's)	at 12/31/11 (\$000's)			
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
1	08/28/90	11.50	08/28/15	150,000	1,620	148,380	98.92	11.63	150,000	150,000	150,000	17,445	
2	11/06/92	9.70	11/06/17	125,000	1,500	123,500	98.80	9.83	125,000	125,000	125,000	12,288	
3	08/05/93	8.75	08/03/18	125,000	1,275	123,725	98.98	8.90	125,000	125,000	125,000	11,125	
4	10/19/93	8.65	10/19/18	75,000	908	74,092	98.79	8.79	75,000	75,000	75,000	6,593	
5	02/24/93	7.90	02/24/14	150,000	1,869	148,131	98.75	8.04	150,000	150,000	150,000	12,060	
6	11/10/95	8.65	11/10/25	125,000	1,612	123,388	98.71	8.79	125,000	125,000	125,000	10,988	
7	05/04/01	6.65	05/04/11	250,000	1,574	248,426	99.37	6.74	250,000	-	93,750	6,319	
8	09/21/05	4.64	06/30/16	200,000	1,100	198,900	99.45	4.70	200,000	200,000	200,000	9,400	
9	09/11/06	5.46	09/11/36	165,000	898	164,102	99.46	5.51	165,000	165,000	165,000	9,092	
10	11/23/06	4.85	04/25/22	125,000	854	124,146	99.32	4.91	125,000	125,000	125,000	6,138	
11	04/28/08	5.35	04/27/18	200,000	1,060	198,940	99.47	5.42	200,000	200,000	200,000	10,840	
12	09/02/08	6.05	09/02/38	300,000	2,076	297,924	99.31	6.10	300,000	300,000	300,000	18,300	
13	07/23/10	5.20	07/23/40	250,000	2,455	247,545	99.02	5.27	250,000	250,000	250,000	13,175	
14	06/21/11	4.88	06/21/41	300,000	2,171	297,829	99.28	4.93	-	300,000	162,500	8,011	
15									<u>2,240,000</u>	<u>2,290,000</u>	<u>2,246,250</u>	<u>151,774</u>	<u>6.76%</u>
16	Regulated Portion										<u>2,109,129</u>	<u>142,509</u>	<u>6.76%</u> /u

Notes:

(1) Computation of effective cost rate takes into account sinking fund requirements and the amortization of any premium/discount and issue expenses, on the average life of each issue.

UNION GAS LIMITED
Cost of Preference Share Capital
Year Ending December 31, 2011

Line No.	Particulars (\$000's)	Class A Shares			Class B Shares	Total (e)	Regulated Portion (f)
		5-1/2% Cumulative Series A (a)	6% Cumulative Series B (b)	5% Cumulative Series C (c)	Floating Rate Cumulative Redeemable Convertible Series 10 (d)		
1	Date of issuance	02/16/59	07/25/60	07/28/64	01/01/09		
	Number of shares issued (quantity)						
2	Par \$50	170,000	90,000	140,000			
3	Par \$25				4,000,000		
4	Dividend rate (\$/year)	2.75	3.00	2.50	0.60		
5	Net proceeds of issue	8,225	4,878	6,922	100,000		
6	Cost rate of net proceeds	5.50%	6.00%	5.00%	2.40%		
	Amount outstanding at:						
7	12/31/12	2,384	4,500	2,475	100,000	109,359	
8	12/31/13	2,384	4,500	2,475	100,000	109,359	
9	Average of monthly averages	2,384	4,500	2,475	100,000	109,359	<u>102,683</u> /u
10	Year cost	131	270	124	2,400	2,925	
11	Profit on share redemption					-	
12	Preference dividend tax credit					<u>(350)</u>	
13	Net cost					<u>3,275</u>	<u>3,075</u> /u
14	Average embedded cost rate					<u>2.99%</u>	<u>2.99%</u>

Updated: 2012-03-27

EB-2011-0210

Exhibit E5

Tab 1

Schedule 4

UNION GAS LIMITED
Combined Weighted Average
Cost of Short-Term Debt
Year Ending December 31

<u>Line No.</u>	<u>Particulars</u>	<u>Actual 2011</u>	
1	Cost of borrowings other than bank loans:		
2	Actual Bankers' Acceptances - 3 Month	1.19%	/u
3	Add:		
4	Spread	-0.10%	/u
5	Costs	<u>0.52%</u>	/u
6	Total cost	<u><u>1.61%</u></u>	/u

UNION GAS LIMITED
Summary of Cost of Capital
Year Ending December 31, 2010

Line No.	Particulars	<u>Utility Capital Structure</u>		Cost Rate %	Requested Return (\$000's)
		<u>(\$000's)</u> (a)	<u>(%)</u> (b)		
1	Long-term debt	2,084,697	58.39	7.07%	147,329
2	Unfunded short-term debt	<u>97,542</u>	<u>2.73</u>	1.10%	<u>1,074</u>
3	Total debt	2,182,238	61.12		148,403
4	Preference shares	102,756	2.88	2.60%	2,670
5	Common equity	<u>1,285,309</u>	<u>36.00</u>	8.54%	<u>109,765</u>
6	Total rate base	<u><u>3,570,303</u></u>	<u><u>100.00</u></u>		<u><u>260,839</u></u>

UNION GAS LIMITED
Cost of Long-Term Debt Capital
Year Ending December 31, 2010

Line No.	Offering Date	Coupon Rate	Maturity Date	Principal Amount Offered (\$000's)	Premium Discount and Expenses (\$000's)	Net Capital Employed		Effective Cost Rate ⁽¹⁾	Total Amount Outstanding ⁽²⁾		Avg. Monthly Averages (\$000's)	Carrying Cost (\$000's)	Projected Average Embedded Cost Rates
						Total Amount (\$000's)	Per \$100 Principal Amount (in Dollars)		at 12/31/09 (\$000's)	at 12/31/10 (\$000's)			
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
1	10/07/88	11.55	10/15/10	100,000	1,100	98,900	98.90	11.69	37,000	-	29,292	3,424	
2	08/28/90	11.50	08/28/15	150,000	1,620	148,380	98.92	11.63	150,000	150,000	150,000	17,445	
3	11/06/92	9.70	11/06/17	125,000	1,500	123,500	98.80	9.83	125,000	125,000	125,000	12,288	
4	08/05/93	8.75	08/05/18	125,000	1,275	123,725	98.98	8.90	125,000	125,000	125,000	11,125	
5	10/19/93	8.65	10/19/18	75,000	908	74,092	98.79	8.79	75,000	75,000	75,000	6,593	
6	02/24/93	7.90	02/24/14	150,000	1,869	148,131	98.75	8.04	150,000	150,000	150,000	12,060	
7	11/10/95	8.65	11/10/25	125,000	1,612	123,388	98.71	8.79	125,000	125,000	125,000	10,988	
8	06/01/00	7.20	06/01/10	185,000	1,644	183,356	99.11	7.33	185,000	-	84,792	6,215	
9	05/04/01	6.65	05/04/11	250,000	1,574	248,426	99.37	6.74	250,000	250,000	250,000	16,850	
10	09/21/05	4.64	06/30/16	200,000	1,100	198,900	99.45	4.70	200,000	200,000	200,000	9,400	
11	09/11/06	5.46	09/11/36	165,000	898	164,102	99.46	5.51	165,000	165,000	165,000	9,092	
12	11/23/06	4.85	04/25/22	125,000	854	124,146	99.32	4.91	125,000	125,000	125,000	6,138	
13	04/28/08	5.35	04/28/18	200,000	1,060	198,940	99.47	5.42	200,000	200,000	200,000	10,840	
14	09/02/08	6.05	09/02/38	300,000	2,076	297,924	99.31	6.10	300,000	300,000	300,000	18,300	
15	07/23/10	5.20	07/23/40	250,000	2,455	247,545	99.02	5.27	-	250,000	114,583	6,039	
16									<u>2,212,000</u>	<u>2,240,000</u>	<u>2,218,667</u>	<u>156,797</u>	<u>7.07%</u> 0.07067
17	Regulated Portion										<u>2,084,697</u>	<u>147,329</u>	<u>7.07%</u> 0.07067

Note:

- (1) Computation of effective cost rate takes into account sinking fund requirements and the amortization of any premium/discount and issue expenses, on the average life of each issue.
(2) Includes sinking fund requirements due within one year.

UNION GAS LIMITED
Cost of Preference Share Capital
Year Ending December 31, 2010

Line No.	Particulars (\$000's)	Class A Shares			Class B Shares	Total	Regulated Portion
		5-1/2% Cumulative Series A	6% Cumulative Series B	5% Cumulative Series C	Floating Rate Cumulative Redeemable Convertible Series 10		
		(a)	(b)	(c)	(d)	(e)	(f)
1	Date of issuance	02/16/59	07/25/60	07/28/64	01/01/09		
	Number of shares issued (quantity)						
2	Par \$50	170,000	90,000	140,000			
3	Par \$25				4,000,000		
4	Dividend rate (\$/year)	2.75	3.00	2.50	0.52		
5	Net proceeds of issue	8,225	4,878	6,922	100,000		
6	Cost rate of net proceeds	5.50%	6.00%	5.00%	2.07%		
	Amount outstanding at:						
7	12/31/12	2,384	4,500	2,475	100,000	109,359	
8	12/31/13	2,384	4,500	2,475	100,000	109,359	
9	Average of monthly averages	2,384	4,500	2,475	100,000	109,359	<u>102,756</u>
10	Year cost	131	270	124	2,067	2,592	
11	Profit on share redemption					-	
12	Preference dividend tax credit					(250)	
13	Net cost					<u>2,842</u>	<u>2,670</u>
14	Average embedded cost rate					<u>2.60%</u>	<u>2.60%</u>

UNION GAS LIMITED
Combined Weighted Average
Cost of Short-Term Debt
Year Ending December 31

<u>Line No.</u>	<u>Particulars</u>	<u>Actual 2010</u>
1	Cost of borrowings other than bank loans:	
2	Actual Bankers' Acceptances - 3 Month	0.81%
3	Add:	
4	Spread	0.20%
5	Costs	<u>0.09%</u>
6	Total cost	<u><u>1.10%</u></u>